

Green Entrepreneurial Awareness and Competitiveness of Agro-Allied SMEs in Obio-Akpor Local Government Area, Rivers State

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# **Abstract**

This study examined the relationship between green entrepreneurial awareness and competitiveness of agro-allied SMEs in Obio-Akpor LGA, Rivers State. The study adopted a cross sectional survey research design. Primary data was collected with the aid of structured questionnaire from the 125 agro-entrepreneurs who were engaged in fish farming, rice farming, poultry farming, oil palm processing, etc. and were registered with the Agricultural Development Board (ADB) in Obio Akpor LGA. They formed the study population. Due to the small size of the population, all 125 agro-entrepreneurs were chosen to participate in the census. The Cronbach Alpha coefficient was used to assess the instrument's reliability, and all items scored above 0.70. Only the data from 99 respondents were used for analysis after the data were cleaned. Two research hypotheses guided the study and the Spearman's Rank Order Correlation Coefficient was used to test the hypotheses. The tests were run using a significance threshold of 0.05. The findings revealed that there is a significant relationship between green entrepreneurial awareness and competitiveness of agro-allied SMEs in in Obio-Akpor LGA, Rivers State. The study concludes that the awareness of green entrepreneurship, which involves integrating environmental considerations into business operations, positively impacts the competitiveness of agro-allied SMEs. Therefore, the study recommends that agro-allied SMEs should prioritize implementing green practices throughout their operations. This could include using eco-friendly farming techniques, reducing waste, recycling materials, and adopting sustainable energy sources.

**Keyword:** Green Entrepreneurial Awareness, Competitiveness, Environmental Knowledge, Green Initiative Orientation

#### 1.0 Introduction

The 'Going green' concept has received increasing consideration in many contemporary societies due to the adverse appearances of the natural calamities in the environment (Ahmad, Shahbaz, Qasim & Long, 2015). A number of scholars hold business community responsible for playing a causative role in environmental degradation, such as, excessive CO2 emission (Demirel, Li, Rentocchini & Tamvada, 2017). Therefore the 'green wave' of creative destruction is swelling up and has not only touched the domain of entrepreneurship (Demirel, Li, Rentocchini & Tamvada, 2017; Melay, O'Dwyer, Kraus & Gast, 2017) but also the higher



educational institutions (Aithal & Rao, 2016). Considering the future of the liveable planet and significance of further entrepreneurial activities for economic growth, policy makers, practitioners, and researchers are spotting on green entrepreneurial activities (Abdur Rouf, 2012). One of the common reasons recognised in promoting the green entrepreneurial initiatives and the transition to more green environmental setting is the keen interest and rapid acceptance of 'going green' concept (Silajdžić, Kurtagić & Vučijak, 2015). Green entrepreneurship has been defined as business that combines environmental awareness with the entrepreneurial actions which are the vital dynamics in the changeover towards a sustainable business model (Gibbs & O'Neill, 2014; Schaper, 2002). Such makeover for green economy cannot be done only by business entities rather, higher education institutions should also get involved and incorporate faculty members and students (Farinelli, Bottini, Akkoyunlu & Aerni, 2011).

The purpose of this study was, therefore, to examine the relationship between green entrepreneurial awareness and competitiveness of agro-allied SMEs in Obio Akpor LGA, Rivers State. The specific objectives of the study are to:

- 1. Explore the relationship between green environmental knowledge (GEK) and competitiveness of agro-allied SMEs in Obio-Akpor LGA, Rivers State.
- 2. Evaluate the relationship between green initiative orientation (GIO) and competitiveness of agro-allied SMEs in Obio-Akpor LGA, Rivers State.

# Research Conceptual Model

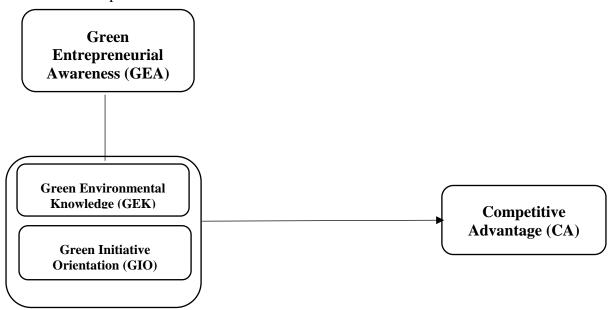


Figure 1: Conceptual Model for the relationship between green entrepreneurial awareness and competitiveness

Source: Author (2023)



### 2.0 Literature Review

### 2.1 Theoretical Foundation

This study was underpinned by the Theory of Planned Behaviour (TPB) as posited by Ajzen (1991). The theory is the most commonly used theory in predicting behaviour intention (Amankwah & Sesen, 2021). The theory defines a person's tendency to engage in a certain behaviour and directly determines that behaviour. According to TPB, attitudes, subjective norms, and perceived behavioural control determine intentions, leading to behaviour (Ajzen, 1991). It hypothesizes that motivation and its three independent variables can predict entrepreneurial intentions (Yasir, Mahmood, Mehmood, Babar, Irfan & Liren, 2021). The desire to start a business, which is a form of entrepreneurial intention, is a necessary condition for entrepreneurial behaviour (Fayolle, Gailly, & Lassas-Clerc, 2006; Kolvereid, 1996 as cited in Chee & Nordin, 2020).

The theoretical model consists of three cognitive variables: (i). attitude toward the behaviour; (ii). Subjective norms; and (iii). Perceived behavioural control that measures individual intention. Ajzen (1991) explains the relationship between intention and behaviour by describing intention as "indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour" under the influence of "motivational factors". Stronger intention to engage in behaviour should likely produce a similar degree of performance.

The first construct is that attitude is made up of behavioural beliefs and result evaluations. The theory's key concept is behavioural intention, which is a person's attitude towards behaviour and measures how positively or negatively they rate a certain behaviour (Ajzen, 1991). Subjective norms, the second construct, is the term used to describe the social pressure people experience to engage in or abstain from a given conduct (Santika, Arnyana, Suastra & Kartika, 2022). It is constructed by normative views and compliance desire (Ajzen, 1991). Third, perceptions of the apparent ease or difficulty of engaging in the behaviour of interest are known as Perceived Behavioural Controls (PBCs) and they have a big impact on the TPB. It is a crucial indicator of the intention to start a green business (Santika *et al.*, 2022).

In practice, the TPB model has been frequently applied in the domain of entrepreneurship. Baron (2004) highlighted that "given the impressive success of a cognitive approach in other fields (e.g., psychology, education), there are grounds for predicting that it may also yield positive results when applied to the field of entrepreneurship". When deciding to become an entrepreneur, one most likely does it voluntarily and consciously (Krueger, Reilly & Carsrud, 2000). The entrepreneurial intention, or the intention to start up, would be a necessary antecedent in performing entrepreneurial behaviours (Fayolle, Gailly & Lassas-Clerc, 2006; Kolvereid, 1996). There are three fundamental components in Ajzen's TPB model: attitudes, subjective norms, and perceived behavioural control. These components are often referred to as cognitive variables in empirical studies (Liñán & Chen, 2009). Attitudes refer to "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question" (Ajzen, 1991). Iakovleva, Kolver, Eid and Stephan (2011) explained subjective norms as the perceived social pressure to perform or avow a behaviour by a person. It can also be defined as a person's perception of whether a behaviour is important in his or her life (Krueger et al., 2000). On the other hand, perceived behavioural control refers to the ability and feasibility to execute a target behaviour (Ajzen, 1991).



# **Green Entrepreneurial Awareness (GEA)**

Green entrepreneurial awareness refers to the understanding and consciousness of individuals, particularly entrepreneurs, regarding environmental sustainability and the integration of environmentally friendly practices into business operations (Muo & Azeez, 2019). It involves recognizing the importance of environmental responsibility and considering the impact of entrepreneurial activities on the planet.

In today's world, the importance of green entrepreneurial awareness cannot be overstressed. Green entrepreneurship refers to the creation and management of environmentally sustainable businesses that not only generate profits but also contribute positively to the environment. According to Baumann, Boons and Bragd (2002), the adoption of green entrepreneurship helps address the environmental challenges facing the world. Environmental degradation, climate change, and resource depletion are some of the pressing issues that require urgent attention. Through green entrepreneurship, businesses can reduce their environmental footprint and promote sustainable practices. Green entrepreneurs can also create new markets for environmentally friendly products and services, which can contribute to economic growth. Moreover, green entrepreneurship can foster innovation and creativity, as entrepreneurs seek to develop new and better ways of doing business that are environmentally sustainable. In conclusion, the adoption of green entrepreneurship is crucial to mitigating the negative impact of human activities on the environment, promoting sustainability, and fostering economic growth.

In recent years, the concept of sustainable development has become increasingly important, and businesses have started to recognize the need to adopt environmentally friendly practices. However, promoting green entrepreneurial awareness among businesses can be challenging. According to Tien, Minh, Mai and Thuc (2020), one effective way to promote green entrepreneurial awareness is through education and training programmes. By providing businesses with information about sustainable practices and their benefits, entrepreneurs can better understand the importance of being environmentally responsible. Additionally, Tien *et al.* (2020) suggests that promoting the development of green entrepreneurship ecosystems can also be effective. This includes providing businesses with access to resources and networks that support environmentally friendly practices. By creating an environment that encourages and supports green entrepreneurship, businesses are more likely to adopt sustainable practices. Overall, promoting green entrepreneurial awareness among businesses requires a multifaceted approach that includes education, training, and the development of supportive ecosystems.

### **Green Environmental Knowledge (GEK)**

Green environmental knowledge encompasses a comprehensive understanding of various aspects related to environmental conservation and sustainability (Zeng, Zhong & Naz, 2023). It entails being well-informed about the intricate dynamics of the natural world, the impacts of human activities on the environment, and the strategies and practices aimed at mitigating those impacts while promoting long-term ecological balance. At the core of green environmental knowledge lies an awareness of climate change – the phenomenon altering weather patterns, ecosystems, and human societies worldwide (Hussain, Butt, Uzma, Ahmed, Irshad, Rehman & Yousaf, 2020). Understanding the root causes of climate change, such as greenhouse gas emissions from human activities like burning fossil fuels and deforestation, is fundamental. Equally crucial is knowledge about the consequences of climate change, including rising global temperatures, extreme weather events, sea-level rise, and disruptions to ecosystems and biodiversity.



According to Frick Kaiser and Wilson (2004), there are at least three forms of environmental knowledge: system knowledge, action-related knowledge, and effectiveness knowledge. Braun and Dierkes (2017) also point out that if a person intends to do something beneficial for the environment, he or she has to first know the elementary composition and functional performance of an ecosystem (system knowledge), and then, knowledge related to environmental problem solutions (action related knowledge) and the benefits of sustainable behaviour (effectiveness knowledge) are considered to be the keys to the individual's choice of pro-environmental behaviour.

The importance of education in promoting green entrepreneurial awareness cannot be overstated. Nuringsih and Nuryasman (2021) argue that education is crucial in creating a culture of sustainability and encouraging individuals to adopt environmentally friendly and conscious behaviours. In particular, education can play a critical role in promoting green entrepreneurship by providing individuals with the skills and knowledge necessary to develop and implement sustainable business practices. This includes knowledge of alternative energy sources, waste reduction techniques, and sustainable production methods. Furthermore, education can also help to raise awareness about the importance of sustainability and encourage individuals to take action to reduce their environmental impact. By promoting green entrepreneurial awareness through education, individuals can be empowered to create innovative solutions to environmental challenges and drive sustainable economic growth.

# **Green Initiative Orientation (GIO)**

Green initiative orientation is a concept derived from green entrepreneurship theory, representing a firm's strategic orientation towards environmental sustainability, innovation, and the creation of new business opportunities through sustainable practices (Muangmee, Dacko-Pikiewicz, Meekaewkunchorn, Kassakorn & Khalid, 2021). It involves a proactive approach to sustainability and a willingness to take risks to exploit green innovation and market initiative. Also, Green initiative orientation refers to the mindset, strategies, and actions adopted by individuals, organizations, or communities to prioritize and promote environmentally sustainable practices and initiatives (Mehrajunnisa, Jabeen, Faisal & Mehmood, 2022). It involves a proactive approach towards environmental stewardship, where considerations for the planet's well-being are integrated into decision-making processes, policies, and operations. This orientation involves a recognition of the interconnectedness between human activities and the health of the planet, as well as a commitment to minimizing negative environmental impacts while maximizing positive contributions.

# **Concept of Competitiveness**

Competitiveness has also been described and understood as an attribute of a company expressed in terms of its operational effectiveness, and efficiency (Kuźmiński, Jalowiec, Maśloch, Wojtaszek & Miciuła, 2020). As for Ambastha and Momaya (2004), competitiveness is the ability of a company to design, manufacture and sell better products and services than those offered by competitors, taking into account price and non-price quality criteria in the assessment. Lisowska (2013) views the competitiveness of small and medium-sized enterprises as the ability to take quick and adequate actions to manage resources efficiently. In the case of business competitiveness, we can define it as the ability of organizations to produce goods or services with a favourable quality price ratio that guarantees good profitability while achieving customer preference over other competitors. The competitiveness of an enterprise should be understood as a proper feature of the enterprise, playing an important role in formulating the enterprise's development strategy (Ungerman, Dedkova & Gurinova, 2018; Kuźmiński *et al*, 2020). Competitiveness describes the extent to which the organization is aggressive in driving for its own success and goals (Jiang, Chai, Shao & Feng, 2018).



Competitiveness is evidently, therefore, a decisive factor for survival in the business world. To achieve it requires setting priorities, which can be defined as a set of options of varying importance that a firm needs to have to compete in the market over a determined time frame (Santos, Pires & Gonçalves, 1999). Organisational competitiveness is about how companies compete in the business environment where it operates. In other words, a competitive strategy means defining how an organization plans to create and maintain a competitive edge to outsmart its competitors. Competitive strategy represents the direction of business strategies that focuses on the external business environment which relates to competitors and customers (Dadzie, Winston & Dadzie, 2012; Hitt, Ireland & Hoskisson, 2015). Strategic competitiveness is a company's long-term action plan aimed at gaining competitive advantage over competitors after assessing their weaknesses, strengths, opportunities and threats in the same industry and comparing them to another company (Farooq, 2018).

The turbulence and the dynamisms that are experienced in this new century pose a lot of challenges and threats for individuals, countries and businesses in particular. The survival of firms in this era depends on the ability of the firm to compete favourably in the market or industry in which they operate (Ambastha & Momaya, 2004). Competitiveness is the capacity of a firm to sustain and fulfill its double purpose; meeting customer requirements and a profit.

### 2.2 Empirical Review

Adopting green practices often leads to cost efficiencies and resource optimization. By reducing energy consumption, minimizing waste, and optimizing resource usage, businesses can lower operational expenses while simultaneously reducing their environmental footprint. This cost-saving aspect enhances competitiveness by allowing these businesses to offer competitive pricing while maintaining healthy profit margins. Also, green entrepreneurial awareness opens doors to new markets and funding opportunities. As consumers increasingly prioritize sustainability, businesses that align with these values can tap into niche markets and attract environmentally conscious customers. Similarly, investors are increasingly drawn to businesses with strong environmental credentials, providing access to capital that can fuel growth and expansion, further enhancing competitiveness.

Sulaiman, Asad, Shabbir and Ismail (2023) examined the support factors and green entrepreneurial inclinations for sustainable competencies: Empirical evidence from Oman. The primary purpose of this paper is to investigate the green entrepreneurial inclination of youth and sustainable development in Sultanate of Oman. It has a secondary objective of stimulating more research in areas identified as still being under-explored. Theoretical framework: Researchers in the field of entrepreneurial intentions identified that certain personality traits as mentioned by META which are crucial for entrepreneurial intentions. Afterwards, Entrepreneurial Potential Model (EPM), which focused over innovative skills was introduced to measure entrepreneurial intentions. The paper is discursive using quantitative research methodology, based on analysis and synthesis of green entrepreneurial literature the framework was developed. The data has been collected from 384 students studying in Dhofar University and University and Technology and Applied Sciences, Salalah. Structural Equation modelling has been conducted to test the model. Despite a broad spectrum of disciplines that investigate green entrepreneurial inclination and despite this special issue in the area of entrepreneurship, there are still areas open for research into green entrepreneurial intentions. The paper develops a model to explain green entrepreneurial inclination.

Yi (2021) conducted a study on turning from green entrepreneurial intentions to green entrepreneurial behaviours: The role of university entrepreneurial support and external institutional support. The study used structural equation model to examine the hypothesis model based on 586 university graduates from two selected universities in China. The results



reveal that green entrepreneurial intentions have a direct positive effect on green entrepreneurial behaviours and that the university entrepreneurial support coupled with external institutional support are indeed key intermediary variables that play important roles in turning. Entrepreneurial intentions into green entrepreneurial behaviours.

Furthermore, Lee, Ling and Ng (2023) examined the relationship between environmental awareness and university students' green entrepreneurial intention in Malaysia. The sample was 384 university students from two public institutions and private higher education institutions in Malaysia. In this study, primary data was collected using 384 a structured questionnaire. The hypotheses were tested using the Multiple Linear Regression. The result revealed that environmental awareness, perceived attitudes, perceived behavioural control, perceived subjective norms have significant influence on green entrepreneurial intention.

Another study by Chee and Nordin (2020) examined green entrepreneurial intention of MBA students in Malaysia. The study sampled 175 individual MBA students in Malaysia and employed Partial Least Squares – SEM to predict green entrepreneurial intention and evaluate the contribution of each predictor in the relationship. The model explained 76.1% the variance of Green Entrepreneurial Intention with strong predictive relevance (R2=0.761, Q2=0.537). From the structural model, beta coefficient for perceived attitude was 0.392, perceived behavioural control was 0.399, and perceived educational support was 0.169. The results imply that perceived attitude and perceived behavioural control are the key intrinsic determinants while education plays instrumental role as an extrinsic determinant to individual interest to become green entrepreneur. The main theoretical implication of this study is confirming the applicability of Theory of Planned Behaviour in explaining green entrepreneurial intention with additional variable, perceived educational support. Practically, this research provides education practitioner and policy makers with useful insight on cultivating green entrepreneurial intention among MBA students, and directional indication on grooming future green entrepreneurs.

Ramayah, Rahman and Taghizadeh (2019) examined modelling green entrepreneurial intention among university students using the entrepreneurial event and cultural values theory. The main objective of this study was to reveal the association of entrepreneurial event theory and cultural values theory with the green entrepreneurial intention. Cross sectional survey was conducted through structured questionnaire among the university students. Partial least squares method was adopted using the Smart PLS 3.0 software for analysing the data from 835 respondents. The results revealed that perceived desirability, perceived feasibility, opportunity seeking, and reasonability taking play significant roles for green entrepreneurial intention. The result of the study provides the government with data to explore opportunities for the green entrepreneurial ventures among universities. Universities may offer customized academic courses, or training program to trigger the green business initiative among the students.

From the foregoing discourse, the study hypothesized thus:

**Ho**<sub>1</sub>: There is no significant relationship between environmental knowledge and competitiveness of agro-allied SMEs in Obio-Akpor LGA in Rivers State.

**Ho2:** There is no significant relationship between green initiative orientation and competitiveness of agro-allied SMES in Obio-Akpor LGA in Rivers State.



# 3.0 Methodology

The study adopted a cross sectional survey research design. Data for this study were collected from primary source with the aid of structured questionnaire. The study population was the 125 agro-entrepreneurs who were engaged in fish-farming, rice-farming, poultry-farming, oil palm-processing and registered with the Agricultural Development Board and made up the study population. Due to the small size of the population, all 125 agro-entrepreneurs were chosen to participate in the census. The Cronbach Alpha coefficient was used to assess the instrument's reliability, and all items scored above 0.70. 125 copies of questionnaire were distributed to agro-entrepreneurs in Obio-Akpor LGA, Rivers State. The Spearman's Rank Order Correlation Coefficient was used to test the hypotheses. The tests were run using a significance threshold of 0.05.

# 4.0 Data Analysis and Results

A total number of 125 copies of questionnaire was distributed to agro-entrepreneurs who were engaged in fish farming, rice farming, poultry farming, oil palm processing in Obio-Akpor, LGA, Rivers State. A total of 99 useable copies of questionnaire representing 80.49% were returned and suitable for data analysis.

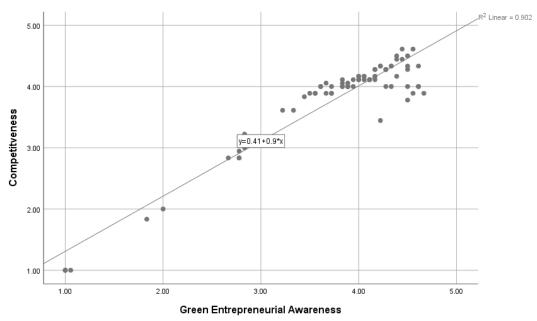


Figure 2: Scatter plot for green entrepreneurial awareness and competitiveness

Figure 2 shows a very strong relationship between green entrepreneurial awareness (GEA is proxied by Green Environmental Knowledge (GEK) and Green Initiative Orientation (GIO) as independent variables) and competitiveness (dependent variable). The scatter plot graph shows the linear value of (0.902) depicting a very strong viable and positive relationship between the two constructs. The implication is that an increase in green entrepreneurial awareness simultaneously brings about an increase in the level of competitiveness. The scatter diagram has provided vivid evaluation of the closeness of the relationship among the pairs of variables through the nature of their concentration.



# **Test of Hypotheses**

Table 1: Correlations for entrepreneurial knowledge and competitiveness

		Environmental Competitiveness Knowledge			
Spearman's rho	Environmental Knowledge	Correlation Coefficie	nt 1.000	.854**	
		Sig. (2-tailed)		.000	
		N	99	99	
	Competitiveness	Correlation Coefficient.854**		1.000	
		Sig. (2-tailed)	.000		
		N	99	99	

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

**Source:** SPSS Output (2023)

**Ho**1: There is no significant relationship between environmental knowledge and competitiveness of agro-allied SMES in Obio-Akpor LGA, Rivers State.

Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.854 on the relationship between environmental knowledge and competitiveness. This value implies that a very strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in competitiveness was as a result of the environmental knowledge. Similarly, Table 1 also shows the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained the sig- calculated is less than the significant level (p = 0.000 < 0.05). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between environmental knowledge and competitiveness of agro-allied SMES in Obio-Akpor LGA, Rivers State.

Table 2: Correlations for green initiative orientation and competitiveness

			Green InitiativeCompetitiveness Orientation		
Spearman's rho	Green	Correlation Coefficient	t1.000	.907**	
	Initiative	Sig. (2-tailed)		.000	
	Orientation	N	99	99	
	Competitiven	Correlation Coefficient	t.907**	1.000	
		Sig. (2-tailed)	.000		
		N	99	99	

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output (2023)

**Ho2**: There is no significant relationship between green initiative orientation and competitiveness of agro-allied SMES in Obio-Akpor LGA, Rivers State.

Table 2 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.907 on the relationship between green initiative orientation and competitiveness. This value implies that a very strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in competitiveness was as a result of the green initiative orientation. Table 2 also shows the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained the sig- calculated is less than the significant level (p = 0.000 < 0.05).



Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between green initiative orientation and competitiveness of agro-allied SMES in Obio-Akpor LGA, Rivers State.

### **4.1 Discussion of Findings**

The result revealed that there is a very strong positive significant relationship between green entrepreneurial awareness and competitiveness of agro-allied SMEs in Obio-Akpor LGA, Rivers State. The current finding corroborates the earlier finding by Sulaiman, Asad, Shabbir and Ismail (2023) who examined the support factors and green entrepreneurial inclinations for sustainable competencies with empirical evidence from Oman. This finding is also in line with Yi (2021) who conducted a study on green entrepreneurial intentions and green entrepreneurial behaviours, with a focus on the role of university entrepreneurial support and external institutional support. The results revealed that green entrepreneurial intentions (GEIs) have a direct positive effect on GEBs and that the university entrepreneurial support coupled with external institutional support are indeed key intermediary variables that play important roles in turning GEIs into GEBs.

Similarly, the current finding agrees with Lee, Ling and Ng (2023) who examined the relationship between environmental awareness and university students' green entrepreneurial intention in Malaysia and found that control and perceived subjective norms have significant influence on green entrepreneurial intention. Another study by Chee and Nordin (2020) in Malaysia examined green entrepreneurial intention of MBA students. As with this study finding, their results implied that perceived attitude and perceived behavioural control are the key intrinsic determinants and education plays an instrumental role as an extrinsic determinant to individual interest to become green entrepreneur. Furthermore, Ramayah, Rahman and Taghizadeh (2019) examined modelling green entrepreneurial intention among university students using the entrepreneurial event and cultural values theory. As with this study, their findings revealed that perceived desirability, perceived feasibility, opportunity seeking, and reasonability taking plays significant role for green entrepreneurial intention. The result of the study will provide the governments to explore opportunities for the green entrepreneurial ventures among universities. Universities may offer customised academic courses, or training programmes to trigger the green business initiative among the students. Students will benefit from learning the essentials of green entrepreneurial intention from this research.

### 5.0 Conclusion

The study concludes that green entrepreneurial awareness positively enhances the competitiveness of agro-allied SMEs in Obio-Akpor LGA, Rivers State. This implies that businesses in the agro-allied sector that demonstrate a strong understanding and commitment to environmental sustainability tend to be more competitive compared to those with lower levels of green awareness. Also, integrating green principles into business operations can lead to enhanced competitiveness within the agro-allied industry.

### 6.0 Recommendations

The study recommends that:

1. Agro-allied SMEs should develop and implement training programme and workshops focused on enhancing green environmental knowledge. These programmes should cover topics such as sustainable farming practices, resource conservation, waste management, and environmental regulations. Also, they should provide incentives, grants, and funding opportunities to encourage agro-allied SMEs to invest in environmental innovation and research.



2. Agro-allied SMEs should prioritize implementing green practices throughout their operations. This could include using eco-friendly farming techniques, reducing waste, recycling materials, and adopting sustainable energy sources.

#### REFERENCES

- Abdur Rouf, K. (2012). Green microfinance promoting green enterprise development *Humanomics*, 28(2), 148–161.
- Ahmed, K., Shahbaz, M., Qasim, A., & Long, W. (2015). The linkages between deforestation, energy and growth for environmental degradation in Pakistan. *Ecological Indicators*, 49, 95-103.
- Aithal, P. & Rao, P. (2016). Green education concepts & strategies in higher education model', *International Journal of Scientific Research and Modern Education*, 1(1), 793–802.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational behaviour and human decision processes*, 50(2), 179-211.
- Amankwah, J., & Sesen, H. (2021). On the Relation between Green Entrepreneurship Intention and Behaviour. Sustainability 2021, 13, 7474.
- Ambastha, A., & Momaya, K. (2004). Challenges for Indian software firms to sustain their global competitiveness. *Singapore Management Review*, 26(2), 65-78.
- Baron, R. A. (2004). The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of business venturing*, 19(2), 221-239.
- Baumann, H., Boons, F., & Bragd, A. (2002). Mapping the green product development field: engineering, policy and business perspectives. *Journal of cleaner production*, 10(5), 409-425.
- Braun, T., & Dierkes, P. (2017). Connecting students to nature—how intensity of nature experience and student age influence the success of outdoor education programs. *Environmental Education Research*, 23(7), 937-949.
- Dadzie, C. A., Winston, E. M., & Dadzie, K. Q. (2012). Organizational culture, competitive strategy, and performance in Ghana. *Journal of African Business*, 13(3), 172-182.
- Demirel, P., Li, Q.C., Rentocchini, F. & Tamvada, J.P. (2017). Born to be green: new insights into the economics and management of green entrepreneurship, *Small Business Economics* [online] https://doi.org/10.1007/s11187-017-9933-z
- Farinelli, F., Bottini, M., Akkoyunlu, S. & Aerni, P. (2011) 'Green entrepreneurship: the missing link towards a greener economy', *ATDF Journal*, Vol. 8(3/4), 42–48.
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European industrial training*, 30(9), 701-720.
- Frick, J., Kaiser, F. G., & Wilson, M. (2004). Environmental knowledge and conservation behaviour: Exploring prevalence and structure in a



- Gibbs, D. & O'Neill, K. (2014). Rethinking sociotechnical transitions and green entrepreneurship: the potential for transformative change in the green building sector', *Environment and Planning A*, 46(5), 1088–1107.
- Hitt, M. Ireland, & Hoskisson. (2015). Strategic Management Competitiveness & Globalization Concepts and Cases (12th ed.). Sout-Western College Pub.
- Hussain, M., Butt, A. R., Uzma, F., Ahmed, R., Irshad, S., Rehman, A., & Yousaf, B. (2020). A comprehensive review of climate change impacts, adaptation, and mitigation on environmental and natural calamities in Pakistan. *Environmental monitoring and assessment*, 192, 1-20.
- Iakovleva, T., Kolvereid, L., & Stephan, U. (2011). Entrepreneurial intentions in developing and developed countries. *Education+ training*, *53*(5), 353-370.
- Jiang, W., Chai, H., Shao, J., & Feng, T. (2018). Green entrepreneurial orientation for enhancing firm performance: A dynamic capability perspective. *Journal of cleaner production*, 198, 1311-1323.
- Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and practice*, 21(1), 47-58.
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15(5-6), 411-432.
- Kuźmiński, Ł., Jałowiec, T., Maśloch, P., Wojtaszek, H., & Miciuła, I. (2020). Analysis of factors influencing the competitiveness of manufacturing companies. *European Research Studies Journal*, 23(2).
- Lee, Y., Ling, H. X., & Ng, Z. I. G. (2023). The relationship between environmental awareness and university students' green entrepreneurial intention in Malaysia (Doctoral dissertation, UTAR).
- Liñán, F., & Chen, Y. W. (2009). Development and cross—cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, 33(3), 593-617.
- Lisowska-Magdziarz, M. (2013). Metodologia badań nad mediami-nurty, kierunki, koncepcje, nowe wyzwania. *Studia Medioznawcze*, *53*(2), 27-41.
- Mehrajunnisa, M., Jabeen, F., Faisal, M. N., & Mehmood, K. (2022). Prioritizing green HRM practices from policymaker's perspective. *International Journal of Organizational Analysis*, 30(3), 652-678.
- Melay, I., O'Dwyer, M., Kraus, S. & Gast, J. (2017). Green entrepreneurship in SMEs: a configuration approach, *International Journal of Entrepreneurial Venturing*, 9(1), 1–17
- Muangmee, C., Dacko-Pikiewicz, Z., Meekaewkunchorn, N., Kassakorn, N., & Khalid, B. (2021). Green entrepreneurial orientation and green innovation in small and medium-sized enterprises (SMEs). *Social Sciences*, *10*(4), 136.
- Muo, I., & Azeez, A. A. (2019). Green entrepreneurship: Literature review and agenda for future research. *International Journal of Entrepreneurial Knowledge*, 7(2).
- Nordin, N. (2020). Green entrepreneurial intention of Mba students: A malaysian study. *International Journal of Industrial Management*, *5*, 38-55.



- Nuringsih, K., & Nuryasman, M. N. (2021). The role of green entrepreneurship in understanding Indonesia economy development sustainability among young adults. *Studies of Applied Economics*, 39(12).
- Ramayah, T., Rahman, S. A., & Taghizadeh, S. K. (2019). Modelling green entrepreneurial intention among university students using the entrepreneurial event and cultural values theory. *International Journal of Entrepreneurial Venturing*, 11(4), 394-412.
- Santika, I. G. N., Arnyana, I. B. P., Suastra, I. W., & Kartika, I. M. (2022). Level Reviewed from The Scope of Citizenship Education Materials. *Journal of Sustainable Development*, 4(1), 29-36.
- Silajdžić, I., Kurtagić, S.M. & Vučijak, B. (2015). Green entrepreneurship in transition economies: a case study of Bosnia and Herzegovina, *Journal of Cleaner Production*, 88, 376–384.
- Sulaiman, M. A. B. A., Asad, M., Shabbir, M. S., & Ismail, M. Y. (2023). Support factors and green entrepreneurial inclinations for sustainable competencies: Empirical evidence from Oman. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(8), 25.
- Tien, N. H., Minh, H. T. T., Mai, N. P., & Thuc, T. D. (2020). Social entrepreneurship and corporate sustainable development. Evidence from Vietnam. *Cogent Business & Management*, 7(1), 1-17.
- Ungerman, O., Dedkova, J., & Gurinova, K. (2018). The impact of marketing innovation on the competitiveness of enterprises in the context of industry 4.0. *Journal of competitiveness*, 10(2), 132.
- Yasir, N., Mahmood, N., Mehmood, H. S., Babar, M., Irfan, M., & Liren, A. (2021). Impact of environmental, social values and the consideration of future consequences for the development of a sustainable entrepreneurial intention. *Sustainability*, 13(5), 2648.
- Yi, G. (2021). From green entrepreneurial intentions to green entrepreneurial behaviours: The role of university entrepreneurial support and external institutional support. *International Entrepreneurship and Management Journal*, 17(2), 963-979.
- Zeng, Z., Zhong, W., & Naz, S. (2023). Can Environmental Knowledge and Risk Perception Make a Difference? The Role of Environmental Concern and Pro-Environmental Behaviour in Fostering Sustainable Consumption Behaviour. *Sustainability*, *15*(6), 4791.