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Moderating effect of Learning Orientation on the Relationship between Entrepreneurial Orientation and Innovation Performance of Medium Enterprises in Nigeria

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Abstract: *This paper assessed the moderating effect of learning orientation on the relationship between entrepreneurial orientation and innovation performance of medium enterprises in Nigeria. This study employed a quantitative research design. The population for this study comprises selected medium enterprises operating in Lagos state, Nigeria. A stratified random sampling technique was used. The sample size was determined using power analysis to ensure sufficient statistical power, with a target sample size of at least 300 medium enterprises to achieve reliable results. Data was collected through a structured questionnaire distributed to owners and managers of the selected medium enterprises. The questionnaire was made of Likert-scale items and was developed based on existing validated scales from the literature. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The study found out that learning orientation moderated the relationship between entrepreneurial orientation and innovation performance of medium enterprises in Nigeria. The study recommended that policymakers and business leaders in Nigeria should consider strategies to promote learning-oriented practices, such as providing training programs, encouraging knowledge sharing, and investing in research and development. This approach not only boosts innovation performance but also contributes to the overall growth and sustainability of medium enterprises, positioning them to thrive in an increasingly competitive and globalized market.*

Keywords: *Entrepreneurial Orientation, Innovation Performance and Learning Orientation*

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1. Introduction

Researchers worldwide have recently shown growing interest in Small and Medium Enterprises (SMEs) because of their substantial contribution to the economic growth of nations (Sana et al., 2020). Given this reality, it is imperative for small and medium-sized enterprises (SMEs) worldwide to adopt a significant level of innovation. This is necessary in order for them to maintain their crucial role in developing a competitive private sector, fostering economic growth, and generating jobs. It is clear that in this ever-changing world, small and medium-sized enterprises (SMEs) have difficulties in effectively adopting methods that are more often employed by their bigger competitors (Naradda Gamage et al., 2020). Small and medium-sized enterprises (SMEs) in Nigeria have a crucial impact on the country's economic growth. They promote self-employment and the acquisition of skills, and are known for their ability to quickly adjust to changes in supply and demand (Eppler-Hattab, 2022).

In the current dynamic economic environment, small and medium-sized enterprises (SMEs) have significant difficulties when trying to embrace the techniques often utilised by bigger corporations (Hermawati & Gunawan, 2021). Large organisations has higher capacity to execute innovation as a result of their enormous capital resources, advanced technology skills, specialised personnel, and sophisticated tools. Small and Medium-sized Enterprises (SMEs) in Nigeria have a crucial impact on the country's economic progress (Olaniyi & Adekanmbi, 2022). They contribute to the development of skills and the creation of self-employed individuals. These SMEs are agile organisations that can easily adjust to the variables that affect the balance between supply and demand. Small and medium-sized enterprises (SMEs) play a crucial role in job creation and employee recruitment during economic reforms (Gherghina et al., 2020). They also have the ability to expand their operations to meet increased demand during economic booms. Additionally, SMEs are well-positioned to swiftly respond to market opportunities, making them valuable contributors to various business sectors (Enaifoghe, 2023).

Notwithstanding this proof, small and medium-sized enterprises (SMEs) worldwide, including those in Nigeria, are encountering progressively intricate obstacles (Joseph, 2023). Moreover, Nigeria's level of entrepreneurship and innovation is now falling behind that of the majority of other nations globally. Therefore, it is crucial to have a deeper comprehension of the entrepreneurship phenomena and the innovation processes in small and medium-sized enterprises (SMEs) to successfully transition towards an economy driven by innovation and to assist SMEs in enhancing their performance (Pucihar et al., 2019). The learning process utilised by small and medium-sized enterprises (SMEs) enables the acquisition of the information, skills, and abilities necessary for the SMEs to fulfil their socioeconomic roles (Okundaye et al., 2019).

Therefore, LO has a crucial role in improving innovation performance. The development of a learning orientation is crucial for acquiring knowledge and effectively applying that knowledge to enhance performance (Sawaean & Ali, 2020; Wang et al., 2020). Recent research has indicated that contemporary organisations necessitate a robust organisational learning (LO) framework in order to get a competitive edge. Organisational learning (OL) impacts the level of innovation inside a company, which then affects the company's overall success (Shuaib & He, 2023). Consequently, LO possesses the capacity to assist an organisation in implementing efficient

innovation, thereby enhancing their performance (Lau & Lo, 2019). Regarding this matter, the performance of a company is affected by Entrepreneurial Orientation (EO) and Learning Orientation (LO). It is important to mention that the influence of EO on performance is not direct, but rather it is moderated by LO. Despite organisations using LO, previous research by Seo, (2020); Ince et al., (2023) and Song et al., (2019) did not examine the relationship between entrepreneurial orientation (EO) and innovation performance. This study will examine the concepts of Entrepreneurial Orientation (EO), Innovation Performance (IP), and Learning Orientation (LO) within the context of small and medium-sized enterprises (SMEs) in Nigeria.

2. Literature Review

2.1 Entrepreneurial Orientation

One of the concepts under great focus throughout the years is entrepreneurial orientation (Wales et al., 2020). A term called entrepreneurial orientation helps to define corporate entrepreneurship—that is, organisational-level entrepreneurship—of current companies (Thabethe, 2019). It gauges corporate entrepreneurial activity. Entrepreneurial orientation is a motivating force that explains how an organization operates (Kusa et al., 2021). Entrepreneurial orientation is described by an organisation's entrepreneurial behaviours, as shown in organisational activities, strategies, and procedures. Al-Mamary and Alshallaqi, (2022) describes an entrepreneurial firm as one that is aggressive, creative, and risk-taking.

Entrepreneurial orientation is one of the strategic orientations of an entity, characterizing the degree of entrepreneurial activities carried out by the company (Adubasim, & Sunusi, 2019). Entrepreneurial orientation, is characterised as a collection of behaviours with the traits of risk-taking, innovativeness, proactiveness, autonomy, and competitive aggressiveness (Olowofeso, 2021), It is also defined as a strategic direction a company employs to have a durable competitive edge over competitors in the market and adapt to a changing corporate environment (Ali & Anwar, 2021).

On the one hand, Dangana, (2022) conceptualized and operationalized entrepreneurial orientation as a uni-dimensional entity with three dimensions: risk-taking, inventiveness, and pro-activity. They maintained that the three dimensions vary in such a way that a rise in one dimension results in an increase in the other dimension, and vice versa. Conversely, Paulus and Hermanto, (2022) added two more elements, autonomy and competitive aggressiveness, therefore increasing the dimensions of entrepreneurial orientation to five. Unlike Miller, Covin, and Slevin, who believe that the dimensions of entrepreneurial orientation change, Lumpkin and Dess maintain that none of any characteristic is greater than the others (Lumpkin & Pidduck, 2021). They came to the conclusion that, depending on how supportive environmental and organisational elements or variables are in their interactions with organisational performance, the dimensions of entrepreneurial orientation independently fluctuate with organisational success.

2.2 Learning Orientation

In recent decades, scholars have been primarily studying entrepreneurial and learning orientations. Learning orientation refers to a basic mindset towards learning that represents the

responsibility of managers and organisations in promoting organisational learning processes (Alerasoul et al., 2022). Learning orientation refers to the organisational ideals that impact the organization's ability to create and use knowledge. Masenya, (2022) proposed that organisations should hire personnel who possess the ability to acquire and distinguish new technical advancements and market knowledge from the external environment. In addition, individuals of organisations must possess the aptitude and skill to efficiently digest information while generating new knowledge at a faster pace than their competitors. Organisations that have a learning orientation are connected to their strategy renewal. Therefore, the concept of learning orientation is now recognised as a strategy to attain ongoing competitive advantage (Alerasoul et al., 2022). It is also considered equally important as inventive productivity in the field of innovative literature. To summarise, the learning orientation has an equal impact on both individual performance and organisational performance.

Learning orientation refers to the acquisition and proficiency of information and abilities via the process of studying and gaining practical experience. According to Li et al., (2021), market information technology is crucial for organisations to stay ahead of their competitors by consistently improving their ability to process market information faster. Organisations that possess more expertise in introducing, gaining, and transferring information, and are able to adapt their behaviour to reflect this new knowledge, are better equipped to respond to the quickly changing dynamics in a volatile business environment (Hermawati & Gunawan, 2021). Alerasoul et al., (2022) defined learning orientation as the organisational culture that influences how likely organisations are to create and use knowledge. This suggests that, apart from brief periods of organisational training and development, fostering a learning orientation necessitates the establishment of a fresh organisational culture that encompasses novel values, norms, beliefs, assumptions, and anticipated behaviour (Darko, 2023).

The adoption of a learning perspective enables management to enhance their capacity to critically evaluate the soundness and efficacy of existing values, beliefs, and practices that are intended to drive organisational success (Mutambo et al., 2022). It strengthens the established standards of learning within an organisation and motivates people to get new information in order to enhance the organization's capacity to achieve exceptional performance. Therefore, adopting a learning orientation enhances the learning behaviour of an organisation and facilitates the transformation of its organisational culture into a more sophisticated market and entrepreneurial-oriented culture, so ensuring long-term growth and survival (Lwesya, F., & Mwakasangula, (2023). Alerasoul et al., (2022) defined learning orientation as a collection of values that influence an organization's satisfaction with the theories it adopts. This is achieved by actively analysing the present principles and practices that impact the organization's performance.

2.3 Innovation Performance

The capacity of a company to successfully create and apply fresh ideas, technologies, goods, or services supporting its competitive advantage and general success is known as innovation performance (Farida & Setiawan, 2022). It covers a spectrum of activities from R&D to commercialization and market adoption of breakthroughs. High innovation performance shows that a company is capable of always producing and implementing fresh ideas that satisfy

consumer needs, improve effectiveness, and provide value to stakeholders. Dussaux et al., (2023) claims that many metrics—including the number of new goods launched, patents registered, and the proportion of income generated from new products or services—allow one to evaluate innovation success.

According to Chatterjee et al., (2024), performance of innovation inside a company is driven by several elements. According to Chatterjee et al., one absolutely needs a strong innovation culture that supports invention, risk-taking, and teamwork. Companies whose cultures value innovation are more likely to fund R&D, promote knowledge-sharing, and assist staff members in investigating fresh ideas. Second, a surroundings fit for innovation depends much on good leadership. Leaders that give innovation top priority, fund creative ideas, and set explicit innovation targets usually find improved results. Thirdly, access to outside information and collaborations may greatly improve performance of innovation. Working with research labs, colleges, and other companies might offer fresh ideas, technologies, and market prospects that internal initiatives by themselves would not be able to meet (Kahn, 2022).

Organisations can evaluate innovation performance with both qualitative and quantitative benchmarks (Van Looy, 2021). Among the quantitative measures is R&D spending as a percentage of revenues, new product launch count, patent count, and time-to--market for each new product. Qualitative measures could include evaluations of client comments on new goods or services, staff participation in innovative projects, and innovation culture. Improving performance of innovation calls both constant assessment and modification (Wang et al., 2021). Businesses might choose to actively seek consumer feedback to match innovations with market demands, engage in staff training, create a cooperative work atmosphere, use technology to simplify innovation processes, and so match innovations with market needs. Furthermore, learning from best practices and benchmarking against industry norms can give insightful analysis that helps to improve innovation capacity (Kaur et al., 2022).

3. Hypotheses Development and Conceptual Framework

3.1 The relationship between Entrepreneurial Orientation and Innovation Performance

Previous studies (Newbery et al., 2023; Mathafena & Msimango-Galawe, 2023) recognises the relevance of EO as a metric when it comes to the exploration of market possibilities and its role in improving the performance of firms. EO encompasses the tactics, creativity, innovation, practices, and risk-taking that are utilised by managers in order to make strategic decisions and to behave in an entrepreneurial manner (Corrêa et al., 2022; Lumpkin & Pidduck, 2021). It is anticipated that these aspects of EO will have a good influence on the innovation performance of small and medium-sized enterprises (SMEs). Therefore, it is necessary to investigate the connection between EO and IP in the context of small and medium-sized enterprises (SMEs) in a variety of nations. Despite the fact that the relationship between EO and firm performance has been widely researched both conceptually and empirically (Aloulou, 2023), there is a paucity of research that investigates the influence of EO on the innovation performance of small and medium-sized enterprises.

Fan et al., (2021) explored the influence of the EO implemented by small and medium-sized enterprises (SMEs) on innovation performance. It is also necessary to carefully examine the

conclusions of these studies. According to the researcher's best knowledge, the understanding of the way in which EO impact the innovation performance of small and medium-sized enterprises (SMEs) is not adequate. This is despite the fact that EO has been acknowledged as an important indication of the performance of SMEs. It is possible that the different EO constructs and the scale of innovation performance in different industries may vary from country to country. This is despite the fact that the findings of the study carried out by Maroufkhani et al., (2023) provided limited insight into the relationship in the context of small and medium-sized enterprises (SMEs) in China, Iran, and Taiwan. As a result, the purpose of this study is to investigate the influence that the EO used by Nigerian small and medium-sized enterprises (SMEs) has on innovation performance. It is hypothesized that, in light of this,

H1: Entrepreneurial orientation has a significant relationship with the innovation performance of SMEs in Nigeria.

3.2 The Relationship between Learning Orientation, Entrepreneurial Orientation and Innovation Performance

Understanding how businesses may maintain constant competitive advantage by means of ongoing development and adaptation depends on a knowledge of the interactions among learning orientation, entrepreneurial orientation, and innovation performance. Learning orientation is the dedication of the company to knowledge acquisition, learning, and using fresh ideas to improve performance (Meekaewkunchorn et al., 2021). This kind of thinking promotes ongoing skill, process, and strategy development, therefore improving the organization's ability to adapt to changes in the external surroundings. Conversely, entrepreneurial attitude describes the company's readiness to be creative, proactive, and risk-taking agent. It shows a strategic attitude stressing the search of fresh prospects and the will to surpass rivals. By encouraging a culture that values creativity, experimentation, and the methodical search of fresh ideas, both learning and entrepreneurial orientations greatly help to define the performance of innovation (Gomes et al., 2022).

Learning orientation and entrepreneurial orientation interact to have a synergistic impact on the performance of innovation. An organisation that is learning-oriented constantly accumulates and absorbs fresh information, which is absolutely essential for seeing fresh prospects and knowing market wants (Yang, 2024). This knowledge base helps the company to get the insights needed to take measured risks and innovate successfully, therefore enabling entrepreneurial orientation to flourish. Strong learning orientation, for example, helps a company to predict technology developments and industry trends, which in turn drives entrepreneurial activity like new product introduction or market entrance (Iyiola et al., 2023). Therefore, the interaction of learning and entrepreneurial orientations produces a dynamic and proactive approach to innovation, which results in higher degrees of innovation performance as shown by improved processes, more product development, and more market competitiveness (Makhloufi et al., 2021).

High degrees of both learning and entrepreneurial orientations have been found in empirical research to be associated with better innovation performance of companies. According to Jardim, (2021), companies who give learning and entrepreneurial behaviours top priority are more likely

to launch great ideas and provide better performance results. This implies that for companies trying to improve their capacity for innovation, encouraging a double focus on learning and entrepreneurship can be a calculated move. Practically, this implies that companies should make investments in building a learning culture that supports experimentation and information exchange while concurrently fostering an entrepreneurial attitude embracing risk-taking and proactive opportunity-seeking (Luu, 2023). Policies supporting cross-functional cooperation, ongoing staff development, and incentive-based innovation initiatives help to accomplish this. Organisations may foster innovation by matching learning orientation with entrepreneurial orientation, therefore generating an atmosphere where long-term success and continuous competitive advantage result (Correia et al., 2023).

H2 *Learning Orientation moderates the Relationship between Entrepreneurial Orientation and Innovation Performance*

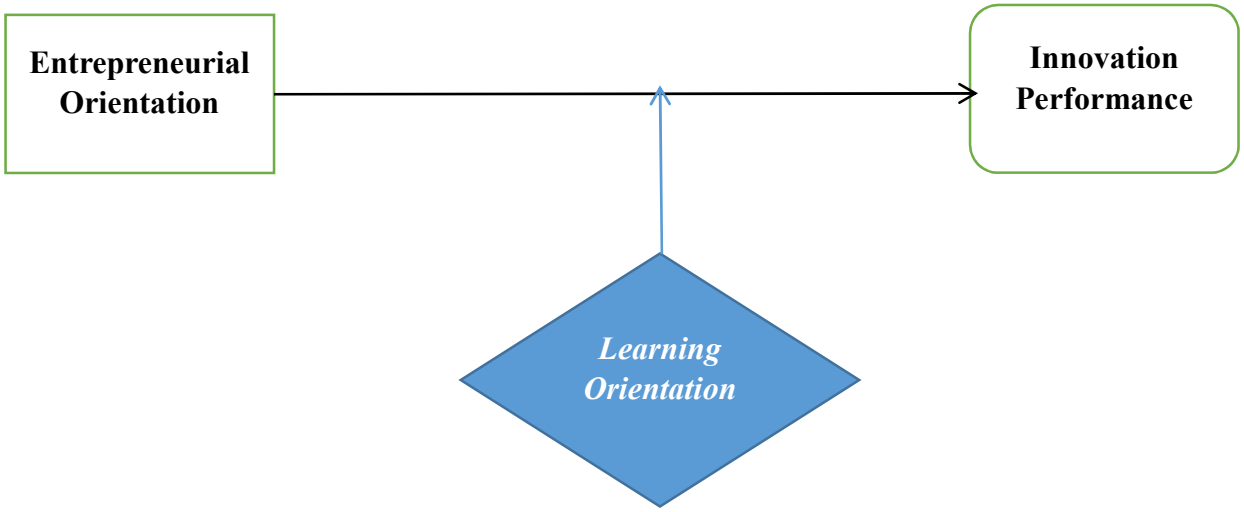

Figure 1: Conceptual Framework

4. Methodology

This study employed a quantitative research design. The population for this study comprises selected medium enterprises operating in Lagos state, Nigeria. A stratified random sampling technique was used to ensure representation from various sectors, such as manufacturing, services, and retail. The sample size was determined using power analysis to ensure sufficient statistical power, with a target sample size of at least 300 medium enterprises to achieve reliable results.

Data was collected through a structured questionnaire distributed to owners and managers of the selected medium enterprises. The questionnaire was designed to measure the following constructs: Entrepreneurial Orientation (EO), Learning Orientation (LO) and Innovation Performance (IP). The questionnaire was made of Likert-scale items and was developed based on existing validated scales from the literature. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). PLS-SEM was chosen due to its suitability for

exploratory research and its ability to handle complex models with multiple constructs and indicators (Guenther et al., 2023).

5 Data Analysis and Results

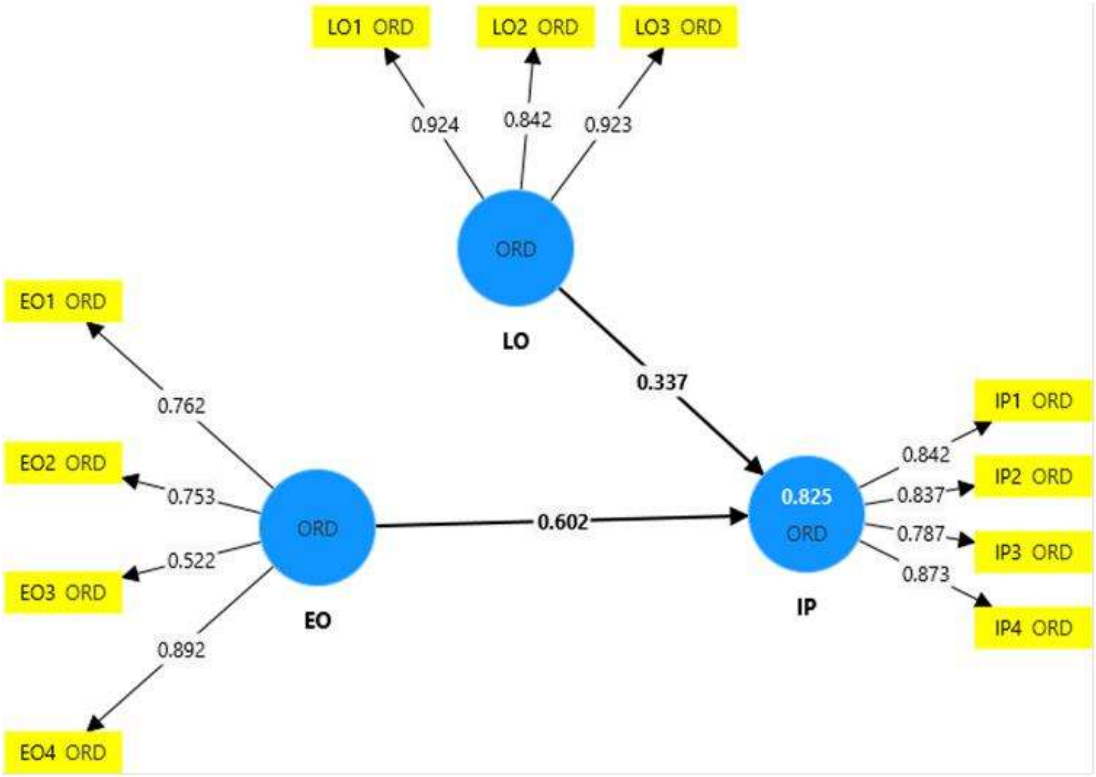

Figure 1: Measurement model

Table1 Convergent Validity of Measurement Model of the Measurement Model

Construct	Item	Loadings	CA	CR	AVE
	INP1	0.777	**0.805**	**0.832**	**0.712**
	INP2	0.76			
Innovation Performance	INP3	0.781			
Entrepreneurial Orientation	EO1	0.859	**0.894**	**0.889**	**0.759**
	EO2	0.879			
	EO3	0.904			
	EO4	0.839			
Learning Orientation	LO1	0.791	**0.899**	**0.900**	**0.712**
	LO2	0.845			
	LO3	0.861			
	LO4	0.897			

Discriminant Validity

As mentioned, the discriminant validity of reflective measurement model is asses by three methods: 1) Cross loading criterion, 2) Fornell and Larcker's (1981) criterion, and 3) Heterotrait-Monotrait ratio of correlations (HTMT).

Cross loading

The first method to assess the discriminant validity of reflective measurement model is exanimating the loadings of indicators. Table 2 shows the cross-loadings result produced by the algorithm function of Smart PLS. The table indicates that all the loadings of indicators with respect to their own construct are higher than other constructs. It also shows that the loadings of each indictor are higher than the indicators in any other constructs in the same columns and row. Therefore, the results confirm that the discriminant validity of reflective measurement model assessed by cross loading criterion is satisfied.

Table 2: Cross Loading

Construct	EO	IP	LO
EO1	**0.880**	0.755	0.625
EO2	**0.825**	0.626	0.608
EO4	**0.899**	0.808	0.815
IP1	0.709	**0.842**	0.631
IP2	0.702	**0.837**	0.752
IP3	0.710	**0.888**	0.774
IP4	0.780	**0.873**	0.686
LO1	0.798	0.791	**0.924**
LO2	0.668	0.676	**0.842**
LO3	0.791	0.821	**0.923**

Fornell and Larcker's criterion

The second technique used to evaluate the reflective measurement model's discriminant validity is the Fornell-Larcker criterion. The Smart PLS algorithm function is also used to calculate the square roots of AVE values. Table 3's results show that the intercorrelations between constructs are represented by non-bolded values, whereas bolded values indicate the square root of the AVE. As a result, in the corresponding columns and rows, every square root of AVE on the diagonal is greater than the off-diagonal correlations. According to Fornell and Larcker's criteria, it can be concluded that the reflective measurement model used in this study has satisfactory discriminant validity.

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Table 3: Fornell-Larcker Criterion

Construct	EO	IP	LO
EO	0.817		
IP	0.784	0.835	
LO	0.724	0.815	0.897

HTMT Criterion

The third method to examine the discriminant validity of this research is Heterotrait-Monotrait ratio of correlations (HTMT). It is the percentage of average value of within the constructs' correlations to the average value of between the constructs' correlations. (Ramayah *et al.* 2016). Gold, Malhotra and Segars (2001) suggest that if HTMT value is not above 0.90, there will be no problem of discriminant validity. Based on the e analysis, the value of HTMT is examined and bolded in the Table 4. The values in the table illustrate that there is appropriate discriminant validity of the research there is satisfactory discriminant validity since the values are less than 0.90.

Table 4: Heterotrait-Monotrait Ratio (HTMT)

Construct	EO	IP	LO	LO x EO
EO				
IP	0843			
LO	0.783	0.746		
LO x EO	0.297	0.316	0.252	

Assessment of Structural Model

After the measurement model assessment, where convergent and discriminant validity of the items and constructs were validated, the next stage examines the structural model. In the process of examining the structural model aimed at confirming the research model empirically. Some fundamental analyses must be performed in the model, which includes collinearity assessment, assessing the significance of the path coefficients, the coefficient of determination (R^2) values, the effect size (F^2) as well as the predictive relevance (Q^2)

Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used in determining the predictive power of the model. The R^2 is also referred to as in-sample predictive power and it ranges from 0 to 1, with higher values indicating a greater explanatory power (Hair et al., 2022).

The result in Table 6 revealed that entrepreneurial orientation and learning orientation jointly explained about 84% of the variation in the dependent variable innovation performance

Table 5: Coefficient of Determination (R^2)

Construct	R-square	Interpretation
Innovation Performance	0.844	strong

Researchers that applied PLS-SEM and regression-based methods in general have repeatedly overlooked assessment of a model's out-of-sample predictive power (Hair et al., 2020). They mostly rely on the R^2 measure, which only shows a model's explanatory power (Hair et al., 2020). However, the R^2 measure does not render any proof of the model's out-of-sample predictive power (Chin et al., 2020). In view of the aforesaid, PLS predict is based on the concepts of separate training and holdout samples for estimating model parameters and evaluating a model's predictive power. To predict the value of a selected dependent construct's indicators, PLS predict uses the values for the independent constructs' indicators of cases in the holdout sample and applies the model estimates from the training sample to generate a prediction of the dependent constructs' indicators (Shmueli *et al.,* 2016). In the same vein, root mean squared error (RMSE) is used since the prediction error distribution is symmetric. The result in Table 7 revealed that Q^2 predict values > 0 which indicates that the model outperforms the most naïve benchmark

Table 6 PLS Predictive of the Measurement Model.

Construct	Q^2predict	PLS-SEM_RMSE	LM_RMSE	PLS-SEM_RMSE- LM_RMSE
IP1	0.501	0.582	0.834	-0.252
IP2	0.627	0.496	0.647	-0.151
IP3	0.544	0.628	0.799	-0.171
IP4	0.596	0.558	0.772	-0.214

Effect size

The effect size (F^2) indicates the level of impact or influence of an individual predicting variable on a directly associated or linked dependent variable (Hair et al., 2017). It presents the degree of the influence of each exogenous variable on an endogenous construct. It also reflects the disparity in R^2 value due to the direct elimination of a predicting variable in the model. Consequently, the effect size (F^2) is applied when measuring the significance of each variable in the model. It is thus concluded that the larger the effect size of a predicting variable in the model, the higher the significant association it has with the endogenous construct. Additionally, Cohen (1988) suggests an effect size value (F^2) of 0.02, 0.15, and 0.35 as small, moderate, and large effect size respectively. As shown in Table 8 all the effect sizes for various relationships are large.

Table 7: Effect size

Relationship	f-square
EO -> IP	0.516
LO -> IP	0.176
LO x EO -> IP	0.325

Test of hypothesis

In order to assess the justification of proposed hypotheses and the structural model of the study, the path coefficient between latent variables and confident intervals bias are scrutinized. There are three rules for the indicator of significance of the structural model relationship for two-tailed test. The levels of acceptance are: p value < 0.05, t value > 1.965 (Hair et al. 2016).

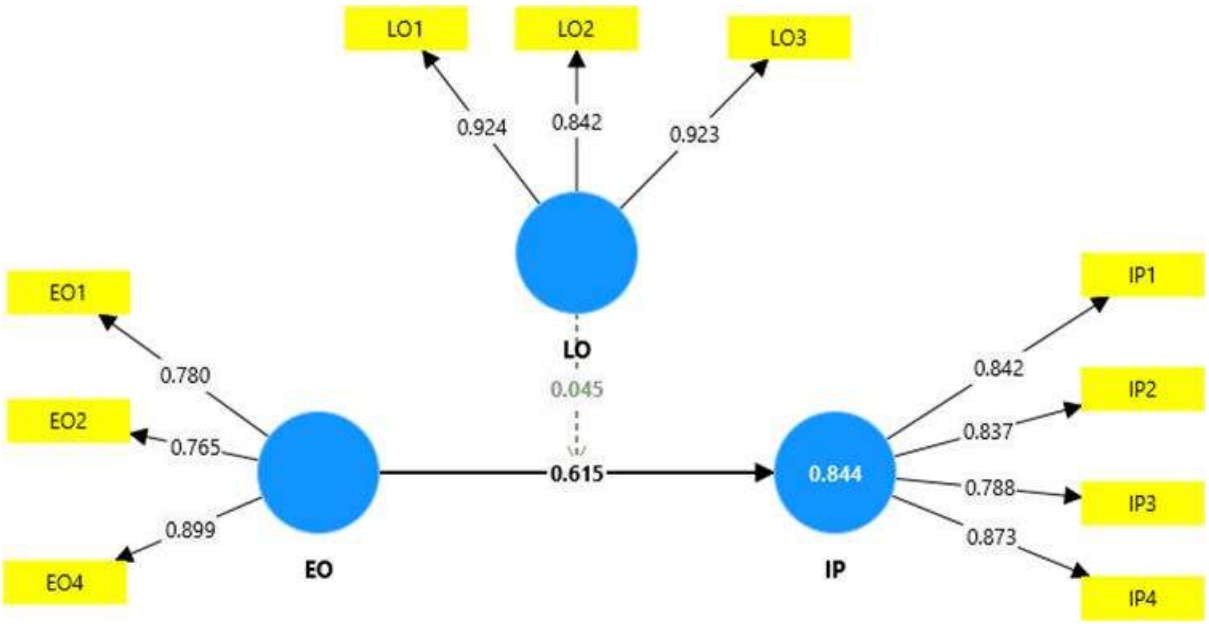

Figure 2: Structural Model

Table 9: Path Coefficients

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
EO -> IP	0.615	0.617	0.052	11.722	0.000
LO -> IP	0.324	0.322	0.056	5.793	0.000
LO x EO -> IP	0.045	0.045	0.023	2.989	0.007

H1 Entrepreneurial orientation has a significant relationship with innovation performance

Testing Hypothesis one, the mean sample value is 0.617, Statistical t value of 11.722 is bigger than t table (1.96) required for a two-tail test, P value of 0.0000 < 0.05 so we conclude that Entrepreneurial orientation has a positive effect on innovation orientation. Therefore, we reject H_0 reject which means Entrepreneurial orientation has a significant effect on innovation orientation

H2: Learning orientation Moderates the relationship between entrepreneurial orientation and innovation performance

A bootstrapping method was performed using SMART PLS to examine if learning orientation mediated the relationship between Moderates the relationship between entrepreneurial orientation and innovation performance. The results of the indirect effect based on 5000 bootstrap samples showed a significant indirect relationship between between entrepreneurial orientation and innovation performance. Moderated by learning orientation ($t = 2.989 > 1.69$, $p = 0.007 < 0.000$). The direction of the moderation is partial and complementary because both the independent variable and the moderator have a significant effect of the dependent variable and act in the same direction which implies that there is no only a significant relationship between the mediator and the dependent variable but also some direct relation between the independent and the dependent variable.

To further investigate the moderating effect of learning orientation on the relationship between entrepreneurial orientation and innovation performance, the simple slope analysis presented is in Figure 4. The green line represents learning orientation at high level (+ 1 SD) while the red line represents learning orientation at low level (- 1 SD). The third line represents learning orientation at mean. A careful observation of the graph revealed that the green line is steeper in comparison with the other lines. This means that at high level of learning orientation, entrepreneurial orientation has stronger impact on innovation performance. This implies that, if learning orientation is increase, the effect of entrepreneurial orientation on innovation performance will be stronger and vice versa. Therefore, the study concludes that there is a positive moderating role of learning orientation on the relationship between entrepreneurial orientation and innovation performance and accept the hypotheses that there is a significant moderating effect of learning orientation on the relationship between entrepreneurial orientation and innovation performance.

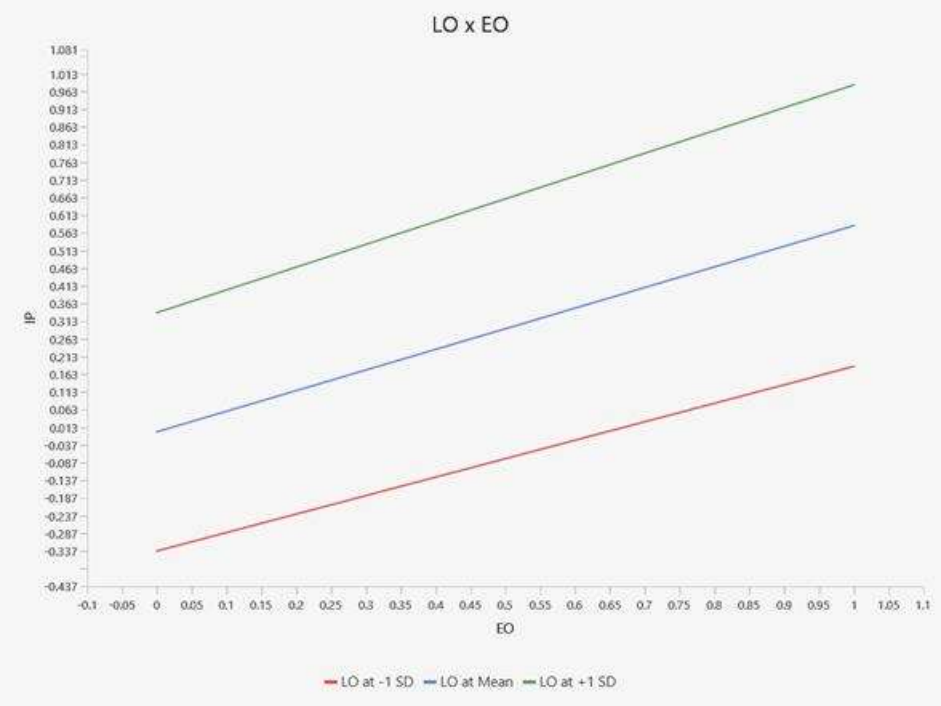

Figure 3: Slope Analysis

6 Conclusion and Recommendations

In conclusion, the study highlighted the critical role that continuous learning and knowledge acquisition play in enhancing the innovative capabilities of businesses. The findings suggest that a strong learning orientation amplifies the positive impact of entrepreneurial orientation on innovation performance, enabling medium enterprises to better adapt to market changes, leverage new opportunities, and develop innovative solutions. This synergy between entrepreneurial and learning orientations fosters a culture of continuous improvement and strategic agility, which are essential for sustaining competitive advantage in a dynamic business environment.

Furthermore, the study underscores the importance of fostering a supportive learning environment within medium enterprises. By prioritizing learning orientation, businesses can enhance their ability to absorb and apply new knowledge, thereby driving higher levels of innovation. Medium enterprises should foster a strong learning culture by encouraging continuous education and professional development. This can be achieved through regular training programs, workshops, and seminars that focus on the latest industry trends, technological advancements, and innovative practices.

Similarly, policymakers and business leaders in Nigeria should consider strategies to promote learning-oriented practices, such as providing training programs, encouraging knowledge sharing, and investing in research and development. This approach not only boosts innovation performance but also contributes to the overall growth and sustainability of medium enterprises, positioning them to thrive in an increasingly competitive and globalized market.

7 Limitations and Recommendations for Further Studies

The study may have limited generalizability due to its focus on medium enterprises in Nigeria. The specific socio-economic and cultural context of Nigeria might influence the dynamics between learning orientation, entrepreneurial orientation, and innovation performance. Future research should consider expanding the geographical scope to include medium enterprises in other countries and regions. This would help in comparing and contrasting the findings across different contexts, enhancing the generalizability and applicability of the results.

The study also made use of cross-sectional design, capturing data at a single point in time. This approach limits the ability to observe changes and developments over time, which is crucial for understanding the evolving nature of the relationship between learning orientation, entrepreneurial orientation, and innovation performance. To address the limitation of the cross-sectional design, future studies should adopt a longitudinal approach. Tracking the same set of medium enterprises over time would provide valuable insights into how learning orientation and entrepreneurial orientation influence innovation performance in the long run.

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