

ENTREPRENEURIAL ORIENTATION IN OFFICE TECHNOLOGY AND MANAGEMENT: PATHWAYS TO SUSTAINABLE ECONOMIC DEVELOPMENT IN POLYTECHNIC IN SOUTHWEST NIGERIA

Dr. Charlotte Bose Iro-Idoro^x & Mr. Zainul Abideen Aliu^y

Abstract

The role of Entrepreneurial Orientation (EO) is vital not only to convert educational programmes into engines of sustainable economic development but also to the overall development of society. This study explored the impact of the dimensions of EO: innovativeness, risk taking, proactiveness, and competitive aggressiveness on entrepreneurship capacity of Office Technology and Management (OTM) students and graduates of Polytechnic in Southwest Nigeria. A descriptive survey research design was employed. The participants of the study were OTM teachers, students and professionals from the industry and 300 sample were chosen by multi-stage sampling method. We collected data through structured questionnaires on a four-point Likert scale and the data was analyzed with descriptive statistics (mean and standard deviation) and inferential methods (t-test). Results showed that the dimensions of EO positively influenced the entrepreneurial potential of OTM graduates. Association of digital skills, business incubation and industry partnership on entrepreneurial outcomes was significant. But institutional safety nets and policy landscapes faired less well. This study finds that EO is an essential driver of graduate enterprise but needs more institutional support. It suggests curricular re-focus, spending on digital tools and a better industry-academia interface to enable sustainable entrepreneurship through OTM education.

Keywords: Entrepreneurial Orientation, Digital Skills, Institutional Support, Sustainable Development

Introduction

In the rapidly changing world economy, Entrepreneurial Orientation (EO) is known to be a significant factor of innovation, competitiveness and sustainable development in the Higher Education (HE) context like Polytechnic. As technical institutions established to graduate technically sound and self-reliant products, Polytechnic have a strategic role in sustaining the economic diversification of Nigeria through the inculcation of entrepreneurial competencies. Similarly, EO indicated by innovativeness, proactiveness, risk-taking, autonomy and competitive aggressiveness provides students with the attitudes and skills crucial for recognizing and acting upon attractive opportunities in a corporate environment (Lumpkin &

^x Department of Office Technology and Management, The Federal Polytechnic Ilaro, Ogun State. charlotte.iroidoro@federalpolyilaro.edu.ng ,ORCID ID: 0000-0002-1379-6250

^y Department of Office Technology and Management, Federal Polytechnic Ayede, Oyo State, Nigeria. aliuza@federalpolyayede.edu.ng, ORCID ID: 0009-0007-8787-3830

Dess, 2001; Covin & Wales, 2019). In the case of Office Technology and Management (OTM), the EO process is essential in reforming the old system of teaching shorthand and typewriting to a dynamic and innovative discipline that encourages creativity, resilience and economic development.

The curriculum of Office Technology and Management has for so long been set aside for administration and secretarial training, but with the current trend in the labour market, a new look is needed for this curriculum with entrepreneurial and ICT modules in view. Incorporating EO in the OTM education can help produce graduates not only as 'job seekers' but as 'job creators' with entrepreneurial skills to start a business by seeking new opportunities and challenges through personal initiatives, which will be the builders of industries with innovative skills, accepting technological changes. Entrepreneurship education embedded in vocational programmes is expected to improve employability and economic participation (Onuma, 2020; Ibrahim & Ogundele, 2022). Furthermore, in the digital age, the possibility for OTM graduates to apply technologies such as cloud computing, virtual office tools and digital communication platforms is a necessary condition for the implementation of competitive microfirms and service-oriented businesses that can promote regional development.

In the Southwest geopolitical zone of Nigeria, the integration of EO into OTM education may represent a tactical lane to economic renewal. Regionally sustainable economy can be reinforced by focused interventions that mainstream EO practices in Polytechnic education, facilitated by policy that stimulates industry-academia partnerships, business incubation, and access to finance. As emphasized by Akinbami and Afolayan (2021), institutions of learning with entrepreneurship potential are in a better place to provide meaningful contributions to the Gross Domestic Product (GDP), youth joblessness, and innovation ecosystems. Therefore, the objective of this study is to empirically explore the ways in which EO in the OTM programmes in Southwest Nigerian Polytechnics could enhance sustainable economic development.

The main purpose of this study is to investigate Entrepreneurial Orientation (EO) and sustainable economic development in Office Technology and Management (OTM) programmes of Polytechnic in Southwest, Nigeria. Specifically, the paper aims to measure the influence of the four dimensions of EO — innovativeness, risk-taking, proactiveness, and competitive aggressiveness — on the entrepreneurial potential of OTM students and graduates. It also intends to find out to what extent digital skills, access to business incubation shops and collaboration with industries contribute to entrepreneurial outcomes of the OTM graduates. Finally, the research aims to assess how effective are support systems and policy frameworks in encouraging EO in OTM programmes in Nigerian Polytechnics.

Based on the purpose of the study, the following research questions were generated.

(i) How does entrepreneurial orientation dimensions influence the entrepreneurial capacity of OTM students and graduates of Polytechnic in the Southwest, Nigeria?

Second, how does the digital skill acquisition, business incubation opportunities, and industry partnerships affect the entrepreneurial performance of OTM's graduates? Third, to what extent do the current institutional support and policy mechanisms promote an entrepreneurial orientation in OTM programmes? Consistent with the research purposes and questions, the following null hypotheses were subjected to testing. The first hypothesis (H_{01}) states that the dimensions of entrepreneurship orientation do not significantly influence the entrepreneur capacity of OTM students and alumni. The second hypothesis (H_{02}) states that digital skills, business incubation and industry partnerships do not influence the entrepreneurial outcomes for OTM graduates. The third hypothesis (H_{03}) maintains that the provision of institutional support system and policy framework do not have significant effect on entrepreneurial orientation among OTM programmes in the Polytechnic in Southwest Nigeria.

Statement of Research Problem

With the nation's emphasis on the promotion of the study of entrepreneurship in higher institutions, the infusion of entrepreneurial orientation into the OTM curriculum has remained weak and haphazard in Nigeria's Polytechnic. It is believed that a good number of OTM graduates do not possess entrepreneurial skills and digital competencies that will empower them to compete and set up viable businesses in the changing business environment. In addition, the lack of industrial cooperation along with poor institutional support practices and business incubation models prevents the development of the entrepreneurial potential of OTM education. Consequently, it is crucial to explore how the dimensions of EO—reactiveness, risk-taking, proactiveness, and competitive aggressiveness—are operationalised in OTM programmes and their influence on the sustainable economic development in the southwest region.

Review of Related Literature

Entrepreneurial Orientation is the processes, practices, and decision-making styles that are experienced by both firms and individuals as they engage in new entry (Loasby, 1976; Lumpkin and Dess, 2001). Its dimensions (i.e., novelty, risk taking, proactiveness, autonomy, and competitive aggressiveness) are important for explaining entrepreneurial orientation. In educational settings, these dimensions have been seen to contribute to the development of creative and self-motivated graduates who can be able to either start new ventures or introduce innovations in established ones (Wiklund & Shepherd, 2005). Several studies have analyzed the phenomenon of EO in academic and work contexts. EO and student entrepreneurial performance in business-related programmes Ibrahim and Ogundele (2022) observed a positive relationship between EO and student entrepreneurial performance. A study conducted by Akinbami and Afolayan (2021) on Polytechnic graduates in Lagos State indicated that graduates' exposure to entrepreneurial training significantly accounted for graduates' self-employment and survival in micro-enterprise. Similarly, Oladipo et al. (2023) established that digital competencies with EO enhanced innovation and the job creation among technology-based graduates.

This study is grounded on the Resource-Based View (RBV), which argues that organisations develop competitive advantage through the use of internal capabilities such as human capital, entrepreneurial talent, and innovation (Barney, 1991). If brought to bear on OTM education, RBV suggests the need to endow students with entrepreneurial assets that are valuable, rare, and nonsubstitutable. Also, Schumpeterian innovation theory actuates the centrality of EO in economic development-focusing on the entrepreneurship role in the destruction of the market equilibrium, and the emergence of the new value chains. The Nigerian Polytechnics system has been criticized for producing graduates with limited practical skills and entrepreneurial mindset (Onuma, 2020). However, recent curriculum revisions by NBTE are beginning to incorporate entrepreneurial education. Still, there is an urgent need for programme-specific integration, especially in OTM, where the fusion of administrative, digital, and entrepreneurial skills can revolutionize employability.

New business models and entrepreneurial ventures are fostered by digital technologies. The incorporation of ICT as tools used in OTM education for the students, such as virtual office simulations, online business tools, and digital communication platforms, tends to facilitate new venture creation and creative problem-solving (Adegboyega & Shobowale, 2021). Furthermore, internal incubation centers at educational institutions also act as mentors to students, in addition to acting as a bridge between theory and reality. To support EO, entrepreneurship education and institutional-industry linkages are crucial aspects, which should be encouraged through policy measures. Research has cited favourable regulatory environments and funding schemes as essential to boosting entrepreneurial emplacement in Nigerian Polytechnic (Nwankwo et al 2022). Engaging the private sector as partners in the process provides valuable input that enhances curricula with practical knowledge, internships and investment opportunities.

Methodology

This study adopted a descriptive survey design to examine the relationship between entrepreneurial orientation and sustainable economic development among Office Technology and Management students in Southwest Nigerian Polytechnic. The population consisted of OTM educators, final-year students from five accredited Polytechnic, and industry stakeholders. A multi-stage sampling technique was used to select a sample size of 300 respondents. Data were collected using a structured questionnaire designed on a 4-point Likert scale (Strongly Agree to Strongly Disagree). The instrument was validated through expert review and tested for reliability using Cronbach's Alpha. Data collection was conducted via physical distribution and online forms. Descriptive statistics such as mean and standard deviation were used to analyze the responses, while inferential statistics, including regression analysis, were used to test the formulated hypotheses.

Results Analysis and Discussion of Findings

Table 1: Influence of EO Dimensions on Entrepreneurial Capacity of OTM Students and Graduates

S/N	STATEMENT	MEAN ($\bar{x}$)	STD DEV (σ)
1	OTM curriculum encourages innovativeness in students.	2.89	0.92
2	Students are motivated to take entrepreneurial risks.	2.78	0.96
3	Proactive behaviour is promoted in OTM courses.	2.87	0.98
4	Competitive business practices are taught in OTM classes.	2.91	0.94
5	OTM Programme enhances problem-solving capabilities.	2.82	0.98
6	Students exhibit entrepreneurial initiative.	2.84	0.94
7	OTM courses promote decision-making autonomy.	2.83	0.89

Table 1 shows the descriptive data of the influence of entrepreneurial orientation on the entrepreneurial capability of Office Technology and Management Students/Graduates in the Polytechnic in Southwest, Nigeria. Average scores across the seven items are higher than the midpoint (2.50) and range from 2.78 to 2.91, and standard deviations from 0.92 to 0.98. These findings signal a consensus of the respondents that innovativeness, risk-taking, proactiveness and competitive aggressiveness are enshrined in the OTM curriculum and are highly relevant to developing entrepreneurial characteristics among students. The overall “Agreed” comments for all items provide an indication that the Polytechnic environment is conducive to the development of these important dimensions of EO.

Table 2: Impact of Digital Skills, Business Incubation, and Industry Partnerships

S/N	STATEMENT	MEAN ($\bar{x}$)	STD DEV (σ)
1	Digital tools are integrated into OTM training.	2.79	0.95
2	OTM students have access to business incubation platforms.	2.86	0.94
3	Industry professionals are involved in OTM curriculum delivery.	2.94	0.93
4	OTM graduates utilize digital skills for entrepreneurship.	2.92	0.92
5	Business incubation centres are active in Polytechnic.	2.92	0.97
6	Internships link students with industry mentors.	2.94	0.96
7	OTM curriculum reflects real-life business practices.	2.94	0.9

The perceived influence of including digital skills, the use of business incubation platforms and industry collaborations in the OTM programmes is presented in Table 2. The mean of the items scores ranges between 2.79 and 2.94 with corresponding standard deviations from 0.92-0.97, all surpassing the cut-off of 2.50. The addition

of online technology, hands-on business experience and industry mentorship, were identified by respondents as strengths to improve the entrepreneurial success of OTM graduates. The results of this study represent the consensus that digital innovation and industry partners are crucial for enhancing students' employability, innovative capabilities, and venture creation in the programme.

Table 3: Effectiveness of Institutional Support Systems and Policy Frameworks

S/N	STATEMENT	MEAN ($\bar{x}$)	STD DEV (σ)
1	The institution supports student entrepreneurial projects.	2.89	0.96
2	Policies encourage entrepreneurship in OTM.	2.88	1.0
3	Funding is accessible for student startups.	2.99	0.91
4	Workshops and seminars on entrepreneurship are regular.	2.79	0.93
5	Industry-academia collaboration is strong.	2.86	0.96
6	Regulatory frameworks support OTM entrepreneurship.	2.99	0.94
7	Staff are trained to promote EO in students.	2.99	0.89

Table 3 assesses of the effectiveness of institutional and policy support mechanisms for developing EO in OTM programmes. Average scores on the seven items range from 2.79 to 2.99, and standard deviations range from 0.89 to 1.0. Agreed" was not uniform, with mean scores higher than 2.50 for all items. This runs counter to the results that indicate that to the extent to which institutionalized policies, financial resources, continuous entrepreneurial seminars, and industry collaboration are available, providers should be more committed to EO. The rather high means indicate the significance of the supportive policy environment and the institution's effort in the sustenance of entrepreneurial education in Polytechnic.

Table 4: Test of Influence of EO Dimensions on Entrepreneurial Capacity

Test (μ_0)	Value ($\bar{x}$)	Sample Mean	T-Statistic	P-Value	Decision ($\alpha = 0.05$)
2.5	2.99		17.282	0.000	Reject H_0

The outcome of a one-sample t-test testing if the influence of EO dimensions significantly deviates from a neutral point of 2.50 is shown in Table 4. Our analysis results in a sample mean of 2.99, a t-statistic of 17.282 and a p-value of 0.000, confirming significant differences at $\alpha = 0.05$. Thus, the null hypothesis (H_{01}) that there is no significant effect, is rejected. The finding does support EO size has a strong positive influence toward OTM students and graduates' entrepreneurship capacity. This supports the conclusions derived by Wiklund and Shepherd (2005) that EO dimensions are conducive to predicting entrepreneurial behaviour.

Table 5: Test of Impact of Digital Skills and Incubation on Entrepreneurial Outcomes

Test (μ_0)	Value	Sample Mean ($\bar{x}$)	T-Statistic	P-Value	Decision ($\alpha = 0.05$)
2.5		2.67	5.56	0.000	Reject H_0

The hypothesis test on the effect of digital skills, business incubation and industry partnerships is shown in Table 5. The computed sample mean is 2.67 a t-statistic equals to 5.56, and p-value equals to 0.000. As the p-value is less than 0.05, we reject the null hypothesis (H_{02}) and conclude that these factors have a significant effect on the entrepreneurial outcomes. These findings corroborated the report of Oladipo et al. (2023) that vocational students are increasingly innovative and better prepared for self-employment, when digital skills and industry are incorporated into vocational education.

Table 6: Test of Institutional Support and Policy Frameworks on EO Promotion

Test (μ_0)	Value	Sample Mean ($\bar{x}$)	T-Statistic	P-Value	Decision ($\alpha = 0.05$)
2.5		2.40	-3.412	0.0007	Reject H_0

Table 6 tests for the effect of institutional support and policy framework on the extent to which EO is supported within OTM programmes. The average value of the sample is 2.40, which is lower than the reference value of 2.50, and the t-statistic equals -3.412 with a p-value of 0.0007. As the p-value was lower than 0.05, the difference was statistically significant, but in which direction the difference occurred, suggests that some present supporting systems might be lacking or underserving. Therefore, although the difference from the benchmark is large, it is a measure of the lack of the ability to implement EO at the institutional level. This result agrees with the report of Nwankwo et al. (2022) who brought to the fore the deficiencies in the regulatory and financial support to entrepreneurship in Nigerian Polytechnic.

The results of this study lent further support to the empirical evidence on the significant influence of Entrepreneurial Orientation (EO) in driving the economic impact of Office Technology and Management (OTM) education programme on Polytechnic in Southwest Nigeria. The results show high EO dimensions (innovativeness, risk-taking, proactiveness, and competitive aggressiveness) in the curriculum of OTM. This is demonstrated in the high mean scores and good agreement among the respondents (Table 1), which proves that entrepreneurial thinking and actions already have a good foundation in OTM programmes. This is consistent with Lumpkin and Dess (2001) who argued that EO is a multi-dimensional phenomenon that is critical for an organisation to effectively cope with both the competitive and uncertain environments. It is also evident from the findings that the infusion of digital skills, business incubation chances as well as industry partnership, enriches the OTM graduates' entrepreneurial skills. As Table 2 indicates, participants considered digital tools, real world business ventures, creativity, tech entrepreneurship and innovation, and preparedness for business

creation as the factors that enable creativity and entrepreneurial skill exposure. This supports the results presented by Oladipo, Ayodele, and Oduwale (2023) on the impact of digital literacy and institutional cooperation with industry representatives on the employability and self-employment intentions of graduates. Also, ICT as a tool to leverage acquisition of vocational education in promoting entrepreneurship was underscored in the studies of Adegboyega and Shobowale (2021).

In table 3, it can be observed from the table that institutional mechanisms such as funding sources, entrepreneurship seminars, policy structures and staff development programmes are considered to be fairly effective. The test of the hypotheses in Table 6 showed a significant negative departure from the expected threshold although the mean score was higher than 2.50. This indicates that there are support mechanisms but these are possibly not well engrained or sufficiently developed to stimulate continuing entrepreneurial expansion. These results resonate with the findings of Nwankwo et al. (2022) who observed that various Nigerian Polytechnic are deficient in appropriate structure, policy alignment and financial incentives required to stimulate a functional entrepreneurship ecosystem. Additional interpretations of the descriptive findings are offered by the inferential statistics. Such results are consistent with those of Wiklund and Shepherd (2005) who had argued that EO positively influences individual entrepreneurial performance (see Table 4). Table 5 equally showed that digital transformation and incubation programmes significantly influence the entrepreneurial success of graduates, and this is in line with the work of Ibrahim and Ogundele (2022), who found that targeted entrepreneurial training improves innovation and startup intentions.

The high but disappointingly not very high mean score in Table 6, however, begs questions about others aspects of Institutional support and policy frameworks. This vacuum suggests the requirement for expression of policy commitment/regression and strategic realignment for promotion of EO in an integrated manner. It also confirms the assertions of Onuma (2020) that to be able to deliver sustainable impact, entrepreneurship education in Nigeria should go beyond rhetorics and be backstopped by practical, institutionalized support systems. The study further underlines the importance of EO in re-tooling OTM education for sustainable economic development. Curriculum, industry cooperation, institutional capacity and policy support are the areas that need urgent attention although changes have already been made to align these areas. The implication is that for EO to be maximally executed in the OTM sector of Nigerian Polytechnic to be effective, there is the need for Nigerian Polytechnic to take a more comprehensive and integrated model encompassing entrepreneurial pedagogy, digital innovation, industry relations and structural policy reforms.

Recommendations

Based on the findings of this study, the following recommendations are put forward:

The National Board for Technical Education (NBTE) and Polytechnic managements should strengthen the OTM curriculum by explicitly embedding EO dimensions.

This includes the practical application of entrepreneurial concepts through case studies, simulations, and project-based learning.

Polytechnic should prioritize the acquisition of digital tools and establish functional business incubation centers. These facilities should offer mentorship, startup funding support, and access to digital platforms for business development, in collaboration with industry stakeholders.

Institutional leaders and policymakers must enhance the structural support for entrepreneurship through sustained funding, regular training of academic staff, and the formulation of clear policies that promote entrepreneurial initiatives across departments.

Stronger partnerships with private sector actors should be fostered through curriculum advisory boards, internship opportunities, and joint entrepreneurship projects. These collaborations will ensure that OTM graduates are equipped with market-relevant skills and business networks.

Polytechnic should institutionalize robust mechanisms for tracking the impact of EO on student outcomes and regional economic performance. Regular evaluation will ensure continuous improvement and alignment with global best practices in entrepreneurship education.

Conclusion

This study has tested empirically the function of Entrepreneurial Orientation (EO) as a significant driver of sustainable economic development via OTM programmes in Polytechnics in Southwestern Nigeria. The results highlight that the dimensions of EO - innovativeness, proactiveness, risk-taking and competitive aggressiveness - are considerably integrated within the OTM curriculum, and have a positive impact on students' and graduates' entrepreneurial potential. Furthermore, the infusion of digital capabilities, business incubation practices and relationships between these institutions and the industry serve as important and positive predictor towards the success of entrepreneurs with OTM graduates likely seeing themselves as potential innovation and economic productivity drivers. But the research also shows a significant lack of institutional and policy support. Although stakeholders acknowledge the existence of support systems, the inferential analysis indicates that these systems do not prove to be very effective in fostering EO to the maximum extent. This underlines the necessity for an integrated institutional approach, not only in incorporating entrepreneurial content in academic programmes, but also ensuring the empowering environment of regular implementation of policy, empowerment and stakeholder engagement.

References

- Adegboyega, M. K., & Shobowale, K. O. (2021). ICT Competencies and Employability of Polytechnic Graduates in Nigeria. *Journal of Business and Technology Education*, 15(3), 89–103.

- Akinbami, O., & Afolayan, B. A. (2021). Entrepreneurial Education and Graduate Self-employment in Lagos State Polytechnic. *Journal of Vocational Education and Training*, 23(2), 120–135.
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120.
- Covin, J. G., & Wales, W. J. (2019). Crafting High-Impact Entrepreneurial Orientation Research: Some Suggested Guidelines. *Entrepreneurship Theory and Practice*, 43(1), 3–18.
- Ibrahim, M. O., & Ogundele, O. J. K. (2022). Entrepreneurial Orientation and Performance of Students in Nigerian Polytechnic: A Quantitative Assessment. *Nigerian Journal of Educational Research and Evaluation*, 21(1), 56–68.
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429–451. [https://doi.org/10.1016/S0883-9026\(00\)00048-3](https://doi.org/10.1016/S0883-9026(00)00048-3)
- Nwankwo, F. O., Ibe, C. C., & Akpan, A. B. (2022). Industry-academia collaboration and innovation in Nigerian Polytechnic. *African Journal of Technical Education*, 10(2), 112–127.
- Oladipo, T. A., Ayodele, O. M., & Oduwale, A. F. (2023). Digital Skills, Innovation, and Graduate Employability in the Nigerian Tertiary Sector. *International Journal of Educational Management*, 37(1), 33–49.
- Oladipo, T. A., Ayodele, O. M., & Oduwale, A. F. (2023). Digital skills, innovation, and graduate employability in the Nigerian tertiary sector. *International Journal of Educational Management*, 37(1), 33–49. <https://doi.org/10.1108/IJEM-06-2022-0270>
- Onuma, N. (2020). Rethinking vocational and entrepreneurship education for sustainable development in Nigeria. *International Journal of Educational Policy Research and Review*, 7(1), 15–23. <https://doi.org/10.15739/IJEPRR.20.002>

Wiklund, J., & Shepherd, D. A. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71–91. <https://doi.org/10.1016/j.jbusvent.2004.01.001>