

## Curriculum Outcomes, Psycho-Social Characteristics and Entrepreneurship Abilities of Polytechnics Graduates in Ondo and Osun State, Nigeria: Implication for National Re-Orientation and Development

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### Abstract

*This study examined the curriculum outcomes psycho-social characteristics and entrepreneurship abilities of polytechnics graduates in ondo and osun state, nigeria : implication for national re-orientation and development. This study adopted an ex-post facto design to predict curriculum outcomes and psycho social-characteristics on the entrepreneurial abilities of polytechnics graduates. The ex-post facto research design was adopted in this study. The research design was employed because the researcher is to identify the relationship and cause-effects of independent variables in the study. Also, it was not an experimental study. All Management and Social Science HND graduates of 2025/2026 session consisted the population of the study. Two hundred and forty five (245) HND graduates purposively selected participated in the study. Three research questions were raised and answered in the study. The curriculum outcomes questionnaire, and personality characteristics questionnaire and entrepreneurial ability inventory were validated and used for data collection. The multiple regression analysis and Pearson moment correlation were the major statistical tools used for data analysis. The findings revealed that the computed t-value of 8.42 with 224 degrees of freedom yields a two-tailed significance value of .000, which is less than the alpha level of 0.05. Consequently, the null hypothesis is rejected. The mean score for psycho-social characteristics (3.67) and entrepreneurship abilities (3.52) both fall above the midpoint of 2.5, indicating moderate-to-high levels among graduates. Again, with a t-value of 5.67 and a significance level of .000 ( $p < 0.05$ ), the null hypothesis is rejected. This indicates that the formal curriculum delivered in polytechnics significantly influences graduates' ability to engage in entrepreneurial activities. Findings from the study revealed that the predictors variables (curriculum outcomes, psycho social characteristics) when combined jointly accounted for both predictors are statistically significant at  $p < .001$ . Psycho-social characteristics ( $\beta = 0.486$ ) have a stronger standardized contribution than curriculum outcomes ( $\beta = 0.398$ ). The findings further revealed that positive and significant relationships exist among curriculum outcomes psycho-social characteristics and entrepreneurial abilities of HND. graduates. It is recommended among others, that they should strengthen curriculum outcomes by integrating experiential learning, business incubation programs, and mandatory entrepreneurship projects.*

**Keywords:** Curriculum outcomes, psycho-social characteristics, entrepreneurial abilities and polytechnics graduates

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**Cite this as:** Olafare, E. A. (2026). Curriculum Outcomes, Psycho-Social Characteristics and Entrepreneurship Abilities of Polytechnics Graduates in Ondo and Osun State, Nigeria: Implication for National Re-Orientation and Development. *Rima International Journal of Education*, 5(2), 192—205. DOI: <https://doi.org/10.65760/rijessu.v5.2.14>

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## Introduction

Entrepreneurship is the willingness and ability of an individual to seek for investment opportunities, to establish and to run an enterprise successfully. With the soaring unemployment rate in Nigeria, self employment and small enterprise initiatives are presently high on the country's national agenda, in the hope that they will provide alternative channels of employment. Yearly, thousands of graduates join the labour market in search of gainful employment. The challenge is thus one of not only tackling the already sizeable unemployed graduates, but also of absorbing the new entrants into the labour market. Underlying this situation is the fact that the training which tertiary students receive has not been fully successful in equipping them with desirable skills and competencies required for job creation and self employment (Adelokun *et al.* 2017).). There best way to tackle poverty and reduce unemployment is to introduce youths to the intricacies of entrepreneurship (Ademiluyi *et al.*, 2020; Akinola, 2017). The realization of this critical fact underlies the directive of the Federal Government to all tertiary education regulatory agencies to establish necessary mechanisms for the introduction, development and sustenance of entrepreneurial culture among Nigerian youth.

Consequently, many tertiary institutions have initiated entrepreneurship education programmes in an attempt to reverse graduate unemployment trend by giving the needed training in entrepreneurial skills to students for setting up businesses and to consider selfemployment as a viable career option. Entrepreneurship implies the creation of job by the younger generation EEE – employment, economic activity and self-engagement (Blasé *et al.*,2025). In Olorundare and Kayode (2014) reports that entrepreneurship as a practical creativeness which combines resources and opportunities in new ways. It involves the application of personal qualities and others resources with the environment for the attainment of business success. Entrepreneurship education does not only provides an opportunity for work but also such a platform later on to develop new products, new services and new technologies which support the society in one way or another (Taks *et al.*, 2014; Wang, 2022). is an imperative that would make a positive contribution to improving the entrepreneurship orientation of people, leading to the acquisition of skills, creativity, confidence, drive, and courage, in order to create employment for self and others.

Entrepreneurship education has come to denote all forms of knowledge delivery that seek to empower the individual to create wealth in the economic sector, thereby advancing the course of development of the nation as a whole. According to Oni and Olaleye, 2004, the goal of entrepreneurship education is to empower the graduates, irrespective of their areas of specialization, with skills that will enable them to engage in income yielding ventures, if they are unable to secure jobs in the public sector. It is a re-orientation from job seekers to job creators. Entrepreneurship is concerned with creating opportunities, meeting the needs of individuals and is a process of identifying gaps in one immediate environment, community and society at large and bringing together resources in an innovative and profitable way to fill these gaps (Oni & Olaleye, 2004; Ogundele, 2020, Umoru & Orah, 2020).

The objectives of entrepreneurship education as succinctly presented by the European Akinola, (2017) include: “raising students awareness of self employment as a career option (the message being that you can become not only an employee, but also an employer); promoting the development of personal qualities that are relevant to entrepreneurship, such as creativity, risk taking and responsibility; and providing the technical and business skills that are needed in order to start a new venture". From the foregoing it can be deduced that exposure of polytechnics graduates to entrepreneurial education will ginger-up entrepreneurial drive and if properly packaged, can be a significant factor in chronic unemployment reduction among graduates.

In empirical work by Tetteh et al (2024), they conducted this so as to do a literature review that focused on the impact of entrepreneurship intentions in light of macro-environmental factors and society values vis-à-vis infrastructure development, government policies and access to finance. Tran, and Von korflesh, (2016) confirmed that students who graduated in entrepreneurship reached higher scores in entrepreneurial intention, ability, self efficacy and aspiration than students who graduated in other disciplines. This will help graduates to acquire entrepreneurial approach to the world of work and prepare them to act as entrepreneurs and managers of a new business.

Similarly, Varela and Jimenez (2001) study has shown that there is a correlation between a polytechnics investment in the promotion of entrepreneurship and the percentage of students becoming entrepreneurs. Additional research by Das (2025) found that entrepreneurship education

create a positive image for the entrepreneurs and contributes to the choice of entrepreneurship as a professional alternatives by graduates.

Lally and Valantime-French (2018), in related studies found that entrepreneurship teachers should promote in their students psychological and personality characteristics which may enhance their entrepreneurship prospects qualities like optimism, courage, fortitude that will developed in entrepreneurship training and also increase students' abilities and interest in entrepreneurship as a career. In the same vein, Tkachev and Kolvereid (1999) findings showed that self employment and entrepreneurial abilities could be increased through Entrepreneurship Training Programme (ETP). Bassey and Olu (2012) investigated how students' perception of tertiary entrepreneurship education relates to graduate self employment potentials in Nigeria using a sample of 690 students in three universities. The findings showed that there was a significant relationship between students' perception of University·administration's provision for tertiary entrepreneurship education, curriculum objectives for tertiary entrepreneurship education, instructional methods for tertiary entrepreneurship education, quality and quantity of tertiary entrepreneurship education instructor's and students entrepreneurial abilities ,tracts and graduate self employment potential. Currently, Polytechnics and Federal Colleges in Nigeria are the key implementers of this skills or ideas. They run entrepreneurship courses and offer expertise programmes as well as access to resources which grow a students into an entrepreneur (Oiku, & Akanbi, 2023). National Board of Technical Education has incorporated entrepreneurship education programmes into their curriculum in line with the contributions of curriculum outcomes and psycho-social characteristics on entrepreneurial abilities of polytechnics students.

### **Research Questions**

The following questions were raised to guide the study;

- I. Is there a significant relationship between curriculum outcomes HND graduates entrepreneurial abilities?
- II. Is there a significant relationship between psycho-social characteristics and HND graduates entrepreneurial abilities?

- III. What is the combined contribution of curriculum outcomes and psycho-social characteristics on HND graduates' entrepreneurial abilities?

### **Methodology**

The study was conducted in Ondo and Osun State in South-western, Nigeria. The ex-post facto research design was adopted in this study. The research design was employed because the researcher is to identify the relationship and cause-effects of independent variables in the study. Also, it was not an experimental study. All Management and Social Science HND graduates of 2025/2026 session consisted the population of the study. The sample population consisted of 225 HND graduates from three (3) Polytechnics in Ondo and Osun State, which includes Federal Polytechnic Ede, (80), Osun State Polytechnic, Iree (75), and Rufus Giwa Polytechnic, Owo, Ondo State (70). Three research instruments were used for data collection and were developed by the researcher. They were curriculum outcomes questionnaire (COQ), personality characteristic questionnaire (PCQ) and entrepreneurial ability inventory (EAI). The research instrument was a structured questionnaire based on the formulated research questions and hypothesis. Each of the three questionnaires consists of two sections. The section A of each of the trio obtained demographic information of the respondents such as, name of school, sex, age, year of graduation. The five point likert type scale was used in section B of each of the three questionnaires. Mean scores are based on a 5-point Likert scale (1 = Very Low, 5 = Very High). The respondents were asked to tick the column that matches their feelings from the options. The section B of COQ contained 20 items which sought information on curriculum outcomes. The PCQ also contained 15 items which sought information on psycho-social characteristics. The EAI contained 20 items, which sought information on entrepreneurial abilities. The instruments were validated by experts in Entrepreneurship Education and Counseling Psychology Department from Adeyemi Federal University of Education, Ondo. The experts scrutinized the item on the instrument to ensure conformity with various contents of curriculum. The comments, observations and suggestions were harmonized and taken into account in preparing the final version of the instruments. The reliability of the instruments was conducted at Federal Polytechnic, Ado-Ekiti, Ekiti State which was outside the sample population of the study. Cronbach alpha reliability co-efficient of 0.78, 0.71 and 0.75 were obtained for COQ, PCQ and EAI respectively. Data collected were

analyzed using t – test and simple linear regression for hypothesis. The null hypothesis was tested at 0.05 level of significance using samples t – test. Where the calculated p value was less than or equal to 0.05 level of significance, the null hypothesis was to rejected. Also, if the calculated p value was greater than the level of significance, the null hypothesis was to be accepted.

## Results

### Analysis of Research Questions:

**Research Question 1:** Is there a significant relationship between psycho-social characteristics and graduates' entrepreneurship abilities?

**Table 1:** t-Test Results for Psycho-Social Characteristics vs. Entrepreneurship Abilities

| Variable                      | Mean | Std. Deviation | t-value | df  | Sig. (2-tailed) | Decision  |
|-------------------------------|------|----------------|---------|-----|-----------------|-----------|
| Psycho-Social Characteristics | 3.67 | 0.78           | 8.42    | 224 | .000            | Reject Ho |
| Entrepreneurship Abilities    | 3.52 | 0.81           |         |     |                 |           |

The table 1, t-test analysis reveals a statistically significant relationship between psycho-social characteristics and entrepreneurship abilities among polytechnic graduates in Ondo and Osun States. The computed t-value of 8.42 with 224 degrees of freedom yields a two-tailed significance value of .000, which is less than the alpha level of 0.05. Consequently, the null hypothesis is rejected. The mean score for psycho-social characteristics (3.67) and entrepreneurship abilities (3.52) both fall above the midpoint of 2.5, indicating moderate-to-high levels among graduates. The t-value being positive and significant suggests that graduates with stronger psycho-social characteristics, such as self-efficacy, motivation, resilience, social networks, and risk-taking propensity tend to demonstrate higher entrepreneurship abilities.

**Research Question 2:** Is there a significant relationship between curriculum outcomes and graduates' entrepreneurship abilities?

**Table 2:** t-Test Results for Curriculum Outcomes vs. Entrepreneurship Abilities

| Variable            | Mean | Std. Deviation | t-value | df  | Sig. (2-tailed) | Decision  |
|---------------------|------|----------------|---------|-----|-----------------|-----------|
| Curriculum Outcomes | 3.15 | 0.85           | 5.67    | 224 | .000            | Reject Ho |
| Entrepreneurship    | 3.52 | 0.81           |         |     |                 |           |

Abilities

The table 2 t-test results demonstrate a statistically significant relationship between curriculum outcomes and entrepreneurship abilities. With a t-value of

5.67 and a significance level of .000 ( $p < 0.05$ ), the null hypothesis is rejected. This indicates that the formal curriculum delivered in polytechnics significantly influences graduates' ability to engage in entrepreneurial activities. The mean score for curriculum outcomes (3.15) is lower than that for psycho-social characteristics (3.67), suggesting that graduates perceive the formal curriculum as moderately effective but with room for improvement.

**Research Question 3:** What is the combined contribution of curriculum outcomes and psycho-social characteristics on HND graduates' entrepreneurship abilities?

**Table 3.1:** Model Summary (Research Question 3)

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1     | 0.742 | 0.551    | 0.547             | 0.534                      |

R Square = 0.551 indicates that 55.1% of the variance in graduates' entrepreneurship abilities is explained by the combined contribution of curriculum outcomes and psycho-social characteristics.

**Table 3.2:** ANOVA (Research Question 3)

| Source of Variation | Sum of Squares (SS) | Df  | Mean Square (MS) | F-Ratio | Sig. ( $P$ ) |
|---------------------|---------------------|-----|------------------|---------|--------------|
| Regression          | 78.45               | 2   | 39.23            | 137.80  | .000         |
| Residual (Error)    | 63.20               | 222 | 0.285            |         |              |
| Total               | 141.65              | 224 |                  |         |              |

Note :  $F(2,222) = 137.80, p < .001$ . The regression model is statistically significant.

**Table 3.3:** Coefficients (Research Question 3)

| Model                         | Unstandardized Coefficients | Standardized Coefficients | T     | Sig. ( $P$ ) |
|-------------------------------|-----------------------------|---------------------------|-------|--------------|
|                               | B                           | Std. Error                | Beta  |              |
| (Constant)                    | 0.845                       | 0.152                     |       | 5.56 .000    |
| Curriculum Outcomes           | 0.412                       | 0.058                     | 0.398 | 7.10 .000    |
| Psycho-Social Characteristics | 0.538                       | 0.062                     | 0.486 | 8.68 .000    |

Both predictors are statistically significant at  $p < .001$ . Psycho-social characteristics ( $\beta = 0.486$ ) have a stronger standardized contribution than curriculum outcomes ( $\beta = 0.398$ ).

## Discussion

In this study three research questions were formulated and tested in this study. Findings from research hypothesis one revealed the significant relationship between psycho-social characteristics and entrepreneurship abilities ( $t = 8.42$ ,  $p < .001$ ) underscores the importance of psychological and social capital. Graduates who possess self-confidence, resilience, motivation, and strong social networks are better equipped to identify opportunities, take calculated risks, and persist through entrepreneurial challenges. This finding challenges the narrow view that entrepreneurship is solely about technical skills or business knowledge. National re-orientation programs must therefore address psycho-social development alongside formal education. The finding support Kiseltsa *et al.* (2018) that psychological factors such as self concept, self efficacy and mentoring significantly determine students' entrepreneurial abilities and risk taking behaviour. In addition the knowledge of entrepreneurship possessed by students is critical factors underlying their entrepreneurial capacity and intention. The findings from research hypothesis two also revealed the significant relationship between curriculum outcomes and entrepreneurship abilities ( $t = 5.67$ ,  $p < .001$ ) confirms that polytechnic curricula do matter. However, the lower mean score for curriculum outcomes (3.15) compared to psycho-social characteristics (3.67) suggests that graduates perceive their formal training as only moderately effective. Many polytechnic programs may still emphasize theoretical content over practical, experiential learning. Curriculum reform should prioritize hands-on projects, industry attachments, and real-world business simulations. The result confirms the finding of Folaranmi *et al.* (2010) that entrepreneurial training practical should be expanded in duration than the theory contents. The findings of the combined regression model ( $R^2 = 0.551$ ,  $F = 137.80$ ,  $p < .001$ ) demonstrates that curriculum outcomes and psycho-social characteristics together explain over half of the variance in entrepreneurship abilities. The fact that psycho-social characteristics ( $\beta = 0.486$ ) contribute slightly more than curriculum outcomes ( $\beta = 0.398$ ) suggests that while formal education is important, the graduate's internal drive and social environment are even more critical. This

has profound implications: even the best curriculum will fail to produce entrepreneurial graduates if their psycho-social characteristics are weak. Conversely, graduates with strong psycho-social characteristics may succeed despite moderate curriculum quality, though optimal outcomes require both. This findings is align with Owusu – Ansha (2004), Iwu and Nzeako (2012) that psychological factors such as self concept, self efficacy and mentoring significantly determine students' entrepreneurial abilities and risk taking behaviour. The significant constant in the regression model ( $B = 0.845$ ,  $p < .001$ ) indicates that other unmeasured factors also contribute to entrepreneurship abilities. These may include innate personality traits (e.g., openness to experience, conscientiousness), access to financial resources, family entrepreneurial background, and regional economic opportunities. Future research should incorporate these variables to increase explanatory power.

## **Conclusion**

The following conclusions are drawn from the findings as following:

- I. There is a significant relationship between psycho-social characteristics and graduates' entrepreneurship abilities. The null hypothesis is rejected. Graduates with stronger self-efficacy, motivation, resilience, and social support networks demonstrate higher entrepreneurship abilities.
- II. There is a significant relationship between curriculum outcomes and graduates' entrepreneurship abilities. The null hypothesis is rejected. The formal polytechnic curriculum significantly influences graduates' ability to engage in entrepreneurial activities, though perceived effectiveness is only moderate.
- III. Curriculum outcomes and psycho-social characteristics together make a significant combined contribution to HND graduates' entrepreneurship abilities. The null hypothesis is rejected. The combined model explains 55.1% of the variance in entrepreneurship abilities, with psycho-social characteristics ( $\beta = 0.486$ ) contributing slightly more than curriculum outcomes ( $\beta = 0.398$ ).

- IV. Psycho-social characteristics are marginally more influential than curriculum outcomes in predicting entrepreneurship abilities among polytechnic graduates in the study area.
- V. Approximately 44.9% of the variance in entrepreneurship abilities remains unexplained, suggesting that other factors such as access to capital, family background, government policies, and regional economic conditions also play important roles.

### **Recommendations**

#### For Polytechnic Administrators and Curriculum Planners

- I. Strengthen curriculum outcomes by integrating experiential learning, business incubation programs, and mandatory entrepreneurship projects. Move beyond theoretical teaching to practical, market-relevant training.
- II. Review and update curriculum content regularly to reflect current industry trends, technological advancements, and local market opportunities.
- III. Increase the mean score for curriculum outcomes from the current 3.15 to at least 4.0 by ensuring that entrepreneurship courses are practical, assessed through business plan development, and linked to real-world mentorship.

#### For Psycho-Social Development

- I. Establish psycho-social support programs within polytechnics, including mentorship schemes, motivational seminars, resilience training, and peer support groups to strengthen students' psychological capital.
- II. Incorporate psycho-social assessments during student admission and throughout the program to identify at-risk students who may need additional support in developing entrepreneurial self-efficacy and motivation.

- III. Engage successful entrepreneurs as role models to inspire students and demonstrate that entrepreneurial success is attainable, thereby enhancing students' outcome expectations.

#### For National Re-orientation and Development Policy

- I. Launch national re-orientation campaigns that celebrate entrepreneurship as a respectable and viable career path, shifting cultural attitudes away from over-reliance on white-collar government jobs.
- II. Integrate psycho-social entrepreneurship education into secondary and tertiary curricula nationwide, recognizing that entrepreneurial abilities are shaped as much by mindset as by skills.
- III. Create a national entrepreneurship development framework that explicitly combines curriculum reform (formal education) with psycho-social interventions (mentorship, motivation, social capital building).

#### For Government and Policymakers

- I. Provide funding and incentives for polytechnics to develop entrepreneurship centers, business incubators, and linkages with financial institutions for startup capital access.
- II. Establish graduate entrepreneurship tracking systems to monitor the relationship between curriculum, psycho-social characteristics, and actual business formation, using data to refine policies.
- III. Address the unexplained variance by investing in complementary factors such as access to microcredit, entrepreneurial infrastructure, and market linkages for new graduates.

#### Implications for National Re-orientation and Development

The findings of this study carry profound implications for Nigeria's national re-orientation and development agenda:

- I. Human capital development must address both cognitive (curriculum) and non-cognitive (psycho-social) domains. Current educational policies overemphasize the former while neglecting the latter.
- II. National re-orientation programs such as the National Orientation Agency (NOA) campaigns should explicitly target psycho-social characteristics—building self-efficacy, fostering achievement motivation, and promoting positive attitudes toward risk-taking and innovation.
- III. Sustainable development in Nigeria requires a critical mass of entrepreneurial graduates who can create jobs, drive innovation, and reduce dependence on oil revenues and government employment. This study demonstrates that achieving this goal requires simultaneous investment in curriculum reform and psycho-social development.
- IV. The polytechnic system, as a producer of middle-level technical manpower, should be positioned as a key driver of economic diversification. However, this study shows that current curriculum outcomes are only moderately effective. Urgent reform is needed.

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