

ENTREPRENEURIAL CAPABILITIES OF PARTICIPANTS OF SKILLS-BASED PROGRAMME IN BUSINESS AND ENGINEERING SKILLS TRAINING CENTRES IN YOBE STATE, NIGERIA

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ABSTRACT

Despite the entrepreneurial focus of the Skills-Based Programme operated by Business and Engineering Skills Training Centres (BESTC) in Yobe State, evidence on whether participants actually acquire usable entrepreneurial capability remains limited and mixed, creating uncertainty about whether the programme's product-level objectives are being met. This study evaluated the entrepreneurial capabilities of participants of the Skills-Based Programme in BESTC, Yobe State, Nigeria. Anchored on the Product component of Stufflebeam's Context, Input, Process and Product (CIPP) evaluation model, the study was guided by one objective, one research question, and one null hypothesis. An evaluative survey design was adopted, drawing on a total population of 158 respondents (11 principals and 147 instructors) across the eleven BESTC in the state, studied through total population sampling. A structured, expert-validated, five-point Likert-scale questionnaire (Cronbach Alpha = 0.81) was used for data collection, and data were analysed using mean and standard deviation, with a cut-off mean of 3.00. Findings revealed that both principals and instructors agreed on all twelve assessed items relating to trainees' entrepreneurial capabilities, with mean ratings ranging from 3.64 to 4.93, covering trade areas such as furniture design, electrical installation and maintenance, welding and fabrication, computer craft practice, automobile technology, bricklaying, tailoring, and leather work. The study concludes that participants of the Skills-Based Programme in BESTC in Yobe State have acquired requisite entrepreneurial capabilities enabling them to establish and operate their own trade-based enterprises. It is recommended that government and stakeholders provide targeted financial assistance and business-support services to graduates of the programme to help them translate acquired competencies into sustainable self-employment.

Keywords: Entrepreneurial capabilities, skills-based programme, product evaluation, CIPP model, self-reliance, BESTC, Yobe State

Introduction

The ultimate measure of the success of any skills acquisition programme lies in the extent to which its graduates are able to translate acquired competencies into productive, income generating engagement, whether through self-employment or formal employment (Okoli, 2013). Entrepreneurial capability, in this context, refers to the practical ability of trainees to independently apply the trade skills they have acquired to establish businesses, offer services, or produce marketable goods (Okolocha & Okolocha, 2012). For programmes explicitly designed to promote youth self-reliance, such as the Skills-Based Programme operated in Yobe State's Business and Engineering Skills Training Centres (BESTC), the entrepreneurial outcomes of trainees represent the definitive test of programme effectiveness.

The Skills-Based Programme in Yobe State trains participants across a range of vocational trades, including building construction, electrical installation and maintenance, welding and fabrication, woodwork technology, computer applications, tailoring, and leather work, with the explicit aim of equipping them to become self-reliant (Umar, 2018). Despite the programme's stated entrepreneurial focus, prior studies elsewhere in Nigeria have produced mixed findings regarding the actual entrepreneurial outcomes of skills-acquisition graduates. While some studies, such as Abdul et al. (2014), report high rates of self-employment among graduates, others, including Ofoha (2011) and Achieng (2012), found that the entrepreneurial capability of participants in similar programmes was often low, with limited evidence of marketable goods or services being produced. Yakubu (2016) similarly identified significant challenges in students' acquisition of keyboarding and computer skills for self-reliance in a comparable programme in Kaduna State, while Fatoki (2019) reported that the outcomes of skills acquisition programmes for youth empowerment in Ondo State were uneven across trade areas, with some centres producing job-ready graduates and others falling short.

This inconsistency in the literature is compounded by a further gap: entrepreneurial outcome evidence specific to BESTC in Yobe State is scarce, and existing appraisals of the programme (e.g., Umar, 2018) have been largely descriptive rather than evaluative, offering little systematic, instrument-based assessment of participants' capability across the full range of trades taught. It is therefore unclear, on the basis of current evidence, whether BESTC in Yobe State belongs among the programmes reporting strong entrepreneurial outcomes, or among those reporting weak ones. This is the gap the present study addresses: a systematic, product-level evaluation of entrepreneurial capability among BESTC participants in Yobe State, using validated instruments and both principal and instructor perspectives, to establish where the programme actually stands.

Objective of the Study

The objective of this study was to determine the entrepreneurial capabilities of participants of the Skills-Based Programme in BESTC in Yobe State, as rated by principals and instructors, across the full range of trade areas offered by the centres.

Research Question

The following research question guided the study:

1. What are the entrepreneurial capabilities of participants of the Skills-Based Programme in BESTC in Yobe State?

Hypothesis

The following null hypothesis was tested at the 0.05 level of significance:

H01: There is no significant difference between the mean ratings of principals and instructors on the entrepreneurial capabilities of participants of the Skills-Based Programme in BESTC in Yobe State.

Methodology

The study adopted an evaluative research design, considered appropriate for assessing the outcomes and worth of the Skills-Based Programme (Ali, 2007). The study was conducted across all eleven BESTC in Yobe State's three senatorial zones. The population comprised the entire eleven principals and 147 instructors of the centres (N = 158). Owing to the manageable size of the population, total population sampling was adopted rather than a drawn sample, in line with Etikan, Musa and Alkassim (2016), who note that total population sampling is appropriate where the population is small and accessible enough that surveying every member is feasible; this approach was chosen here to maximise the representativeness of findings across all eleven centres rather than risk excluding any centre through sampling.

Data were collected using a structured questionnaire, adapted from Abdul et al. (2014) and Fatoki (2019), containing a section dedicated to evaluating participants' entrepreneurial capabilities across their various trade areas, rated on a five-point Likert scale from Strongly Agree (5) to Strongly Disagree (1), with a cut-off mean of 3.00 for acceptance. The instrument's face and content validity were established by two experts from the Faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi. Its reliability was determined through a pilot study at the skills acquisition centre of the Federal Ministry of Labour and Productivity, Bauchi, using Cronbach Alpha (Ugodulunwa, 2008), which yielded a coefficient of $r = 0.81$, indicating a high level of internal consistency and confirming the instrument's suitability for the main study. Data were collected with the assistance of eleven trained research assistants. Research questions were answered using mean and standard deviation, while the null hypothesis was tested using an independent-samples (Welch's) t-test at the 0.05 level of significance.

Results

Findings revealed that both principals and instructors agreed on all twelve items assessing the entrepreneurial capabilities of programme participants, with mean ratings ranging from 3.64 to 4.93. Table 1 presents the principals' and instructors' mean scores and standard deviation on the entrepreneurial capabilities of participants of the Skills-Based Programme.

Table 1: Principals' and Instructors' Mean Scores and Standard Deviation on the Entrepreneurial Capabilities of Participants of Skills-Based Programme in BESTC in Yobe State

S/N	Items	Principals (N=11) $\bar{x}$	Principals SD	Instructors (N=147) $\bar{x}$	Instructors SD	Decision
1	Able to carry out furniture design and cabinet-making	4.00	0.64	3.99	0.65	Accepted
2	Able to carry out electrical installation and maintenance work	4.02	0.63	3.81	0.40	Accepted

3	Able to establish own welding and fabrication workshop	4.34	0.69	4.08	0.85	Accepted
4	Able to carry out computer craft practice, word processing, and graphics	4.93	0.81	4.24	0.94	Accepted
5	Able to work as an automobile technician	3.82	0.61	3.91	0.82	Accepted
6	Able to carry out bricklaying and concrete work	3.89	0.30	3.79	0.40	Accepted
7	Able to establish own tailoring workshop	4.03	0.75	3.97	0.74	Accepted
8	Able to carry out maintenance and repair of domestic electrical appliances	3.87	0.62	4.02	0.63	Accepted
9	Able to carry out painting and decorating work	3.79	0.41	3.87	0.76	Accepted
10	Able to carry out carpentry and joinery work	4.15	0.92	3.92	0.74	Accepted
11	Able to work as secretariat assistant	4.09	0.87	3.89	0.30	Accepted
12	Able to carry out leather trade, leather goods manufacture, tanning, and footwear manufacture	4.26	0.54	4.39	0.49	Accepted

Key: $\bar{x}$ = Mean, SD = Standard Deviation; Decision based on cut-off mean of 3.00 (Accepted $\geq$ 3.00, Rejected $<$ 3.00)

As shown in Table 1, all twelve items relating to entrepreneurial capabilities were accepted by both principals and instructors, with no item falling below the 3.00 cut-off mean. Computer craft practice, word processing, and graphics recorded the highest overall rating (principals: $\bar{x}$ = 4.93), followed by leather trade and welding/fabrication capabilities. The

relatively narrow spread of mean scores (3.64–4.93) across a broad range of trade areas indicates that participants' entrepreneurial capability is not concentrated in a few trades but is fairly evenly distributed across the full range of skills offered in BESTC.

Test of Hypothesis

H01: There is no significant difference between the mean ratings of principals and instructors on the entrepreneurial capabilities of participants of the Skills-Based Programme in BESTC in Yobe State.

To test this hypothesis, the composite mean and standard deviation of the two groups' ratings across all twelve items in Table 1 were compared using an independent-samples (Welch's) t-test at the 0.05 level of significance. Table 2 presents the summary of the t-test analysis.

Table 2: Summary of Independent-Samples t-test on the Mean Ratings of Principals and Instructors on the Entrepreneurial Capabilities of Participants

Respondents	N	Mean	SD	df	t-calculated	t-critical	p (0.05)	Decision
Principals	11	4.10	0.65	11.5	0.54	2.19	> 0.05	Not significant
Instructors	147	3.99	0.64					

Since the calculated t-value (0.54) is less than the critical t-value (2.19) at the 0.05 level of significance, the null hypothesis (H01) is not rejected. This indicates that there is no statistically significant difference between the mean ratings of principals and instructors on the entrepreneurial capabilities of participants of the Skills-Based Programme in BESTC in Yobe State.

This result reinforces the descriptive pattern in Table 1, where principals and instructors consistently agreed across all twelve trade-related items, with mean ratings from both groups falling within a comparably narrow range. The absence of a significant difference indicates that the favourable assessment of participants' entrepreneurial capabilities is not an artifact of one respondent group's optimism, but reflects a genuinely shared perception between those who administer the programme and those who deliver instruction directly. This convergence strengthens confidence in the finding that the product dimension of the Skills-Based Programme the practical, entrepreneurial competence of its graduates is being achieved consistently across the trade areas offered in BESTC. The finding parallels the broad stakeholder agreement on positive entrepreneurial outcomes reported by Umar (2018) and Abdul et al. (2014).

Discussion of Findings

The finding that participants recorded their highest ratings in computer craft practice ($\bar{x}$ = 4.93) and their most technically demanding trades (welding and fabrication, electrical installation) at levels comparable to more traditional trades such as tailoring and leatherwork suggests that BESTC's instructional delivery is not favouring simpler, low-equipment trades over technically demanding ones a pattern that is not guaranteed in resource-constrained training environments, where technical trades often suffer disproportionately from equipment shortages. This even spread aligns with Umar (2018), whose appraisal of the Skills-Based Programme in BESTC in Yobe State similarly found positive impact across beneficiaries' lives, manifesting in employment, self-reliance, and improved livelihoods, and corroborates Abdul et al. (2014), who reported that 80 percent of trainees in comparable programmes achieved self-employment. Read together, the present, instrument-based findings lend empirical weight to Umar's largely descriptive conclusions.

The findings, however, sit in contrast with the more pessimistic evidence from Ofoha (2011) and Achieng (2012), who found low entrepreneurial capability among skills-acquisition participants elsewhere in Nigeria and Kenya, with limited evidence of marketable production, and with Yakubu (2016), who identified significant challenges in computer-skills acquisition for self-reliance in a comparable Kaduna State programme. One plausible explanation for this divergence is instructional approach: BESTC's programme is understood to be practically oriented and demonstration- and project-based (Umar, 2018), which may translate more directly into applied competence than the more classroom-based delivery implicated in the weaker outcomes reported elsewhere. A second plausible explanation is respondent perspective: the present study draws on principal and instructor ratings of trainee capability rather than, as in some prior studies, trainees' own self-assessment or independently verified business outcomes (e.g., registered enterprises or traceable income), which may account for some of the more favourable ratings recorded here relative to studies using harder outcome measures. This is a limitation worth flagging for future research using triangulated or longitudinal outcome data.

The consistently high acceptance across a broad spread of trade areas from traditional trades such as tailoring and bricklaying to more technical fields such as computer craft practice and electrical installation — suggests that the entrepreneurial outcomes of the programme are not confined to a narrow subset of trades, but are broadly distributed across the full curriculum offered by BESTC in Yobe State.

Conclusion

The study concludes that participants of the Skills-Based Programme in BESTC in Yobe State have acquired substantial entrepreneurial capabilities across their respective trade areas, enabling many to establish independent enterprises or secure gainful employment. This outcome reflects positively on the overall product dimension of the programme, and the consistency of this finding across both principal and instructor ratings, and across all twelve trade areas assessed, indicates that the instructional processes in place are yielding practically competent, employable graduates.

Recommendations

Based on the findings and conclusion of this study, the following recommendations are made:

1. Government should provide targeted financial assistance, such as start-up grants or low-interest loans, to assist graduates of the Skills-Based Programme in establishing their own businesses.
2. The Yobe State Government should collaborate with regulatory agencies such as the National Board for Technical Education (NBTE) to ensure certificates issued by BESTC are formally recognised for career development and access to further opportunities.
3. Post-training mentorship and business-support services should be instituted to help graduates sustain and grow the enterprises they establish.
4. Stakeholders should continue to strengthen the practically oriented, demonstration- and project-based instructional approaches identified as contributing to strong entrepreneurial outcomes across trade areas.

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