

Technical Vocational Education and Training (TVET) as Catalyst for Entrepreneurial Development of Students in Polytechnics: A Case Study of Accra Polytechnic, Ghana

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Abstract: This study looks at the current curriculum of two programmes run in Accra Polytechnic: namely Secretaryship and Management Studies on one hand and Fashion Design and Textiles on the other and students' readiness towards venturing into entrepreneurial ventures. The former programme is geared towards the acquisition of skills to serve industries and businesses whilst the latter is basically the acquisition of skills geared towards entrepreneurial ventures. Since its inception, the Polytechnics have sought to train large number of graduates who have been able to be absorbed in industries and businesses whilst some have founded their businesses. Is the large number of students graduating from our Polytechnics able to set-up their own businesses? What are we doing right and what need to be improved to be able to curb the large number of unemployed youth in Ghana? This study used descriptive study design and a survey method was used to collect data using stratified sampling technique based on the population of each programme. The findings suggest that lack of entrepreneurial skill and start-up capital are the two major challenges facing students in Technical, Vocational, Education and Training (TVET) institutions. These have implications for policy makers who need to come up with relevant strategies to make TVET institutions relevant in order to achieve the Sustainable Development Goals (SDGs) 1, 4, 8, 9, 10 and 12.

Keywords: Technical, Vocational, Education and Training (TVET), Entrepreneurial, Acquisition of Skills, Strategies, Catalyst, Sustainable Development Goals (SDGs)

1. Introduction

Technical and Vocational Education Training (TVET) refers to the educational processes that involve the study of technologies and related sciences and the acquisition of practical skills and knowledge aimed at discovering and developing the individual for employment in various sectors of economic and social life [1]. On the other hand, Entrepreneurship refers to an individual's ability to turn ideas into action and is therefore a key competence for all, helping young people to be more creative and self-confident in whatever they undertake [2]. The current economic, technological, demographic, societal and educational milieu in

which TVET is accomplished has changed over the decades [3]. Again, a document joint published by UNESCO and ILO [4] has indicated that education and skills acquisition lead to fewer unemployment and parity in employment. Consequently, the state and people within the country gain. In an earlier research by [5], he indicated that in the prevailing technological age, training leading to acquisition of skills in TVET related field is vital for appropriate industrial development at all echelons. Graduates of TVET from the Polytechnics are adept in vocational and technical fields and are capable of setting their own businesses and giving training opportunities to unskilled youths to be engaged in the industries. This is equally shared by [6] who posits that TVET main goal is to provide skills, knowledge and attitudes to

prepare individuals for employment in occupations or recognised fields for national development. [7] is of the view that the gains of TVET is basically in its employment avenue. [8] supports the role TVET plays as preparing individuals to acquire skills for the labour market as well as providing general education to the students concerned. [9] claimed that investment in education and training benefits the individual concerned and society at large.

This assertion has been reiterated by [10]; [11] and [12] who equally agree that TVET is indeed a catalyst for productive and self-employment. To them, it could be achieved through properly grounded technical and vocational education which is the best armament for fighting poverty.

The Polytechnic Act mandated the establishment of Technical and Vocational Education Training (TVET). Therefore, the Polytechnics are noted to invariably position to offer vocational and technical oriented programmes at the tertiary level to meet industrial needs. The core mandate is to help bridge the gap between lower and high level human resources categories in industries, commerce, public and civil service as part of the country's developmental agenda. It is also meant to give opportunity to those who could not go through the normal traditional universities to have an alternative higher education which would train them to acquire skills and knowledge. Again, the principle rationale was to get polytechnic graduates start their own businesses as they acquire the needed skills and in Ghana, the Council for Technical and Vocational Education and Training (COTVET) has been mandated to take the lead in the development of policy for TVET in order to develop the needed human capital for the country [13]. COTVET Act 781, (2006) gives it quite a number of mandates to regulate and strengthen TVET institutions in Ghana, these they have done to some extent.

Previous governments in Ghana have occasionally reformed the educational system in the country, with a view to transforming some areas into technical and Vocational Education with the main goal of making the educational system more relevant for the world of work, to boost the informal economy in order to reduce unemployment and poverty. This has been haphazardly executed with the Polytechnics used as a catalyst to train tertiary level TVET graduates. There is a perception out there that the Polytechnics are second class institutions, so many parents and students see it as a second alternative to the traditional university. In Ghana, employers rate graduates of Polytechnics lower than those from the traditional universities. [14] found in his study that even teachers teaching TVET programmes do not want their children to study TVET programmes. This is because the TVET programme at the secondary level is characterized with inadequate financing and negative perceptions.

Per the curricular of the TVET institutions including the Polytechnics in Ghana, they are supposed to devote 30% of the course structure to theory and 70% to practical hands-on training, however, [15] found that this is lacking in most TVET institutions in Ghana as they lack many facilities.

Unemployment Rate in Ghana according to the Ghana Statistical Service (GSS) is averaged 8.82% from 2001 until 2013, reaching an unprecedented high of 12.90% in 2005 and a record low of 15.20% in 2013. Currently unemployment among the youth ages 15 – 24 is 16.4% for males and 16.7% for females according to the 2010 population and housing census estimates [16]. If the Polytechnics are better placed and given the enabling environment the country is likely to achieve six of the Sustainable Development Goals (SDGs) which are:

GOAL 1: End poverty in all its forms everywhere, GOAL 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, GOAL 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, GOAL 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation, GOAL 10: Reduce inequalities within and among countries and GOAL 12 Ensure sustainable consumption and production patterns. However, the billion cedi question is TVET a catalyst to entrepreneurial development? What is the difference between courses taught in the Polytechnics which are competency based and those not? The study tries to explore the differences in the TVET and non TVET based programmes and to ascertain whether they both serve to develop the entrepreneurial spirit in the students of the Polytechnics.

2. Methodology

This study used descriptive study design and a survey method was used to collect data using stratified sampling technique based on the population of each programme. A descriptive study is useful because by its nature, it enables the researcher gain more information about the characteristics within a particular field of study with the purpose of providing a picture of the situation as it naturally exists [17]. This study used quantitative and qualitative methods. In their write-up, [18] argued that the fundamental principle of mixed methods research is that multiple kinds of data could be collected with different strategies and methods in ways that reflect complementary strengths and non-overlapping weaknesses, allowing a mixed methods study to provide insights not possible when only qualitative or quantitative data are collected. In the words of [19] mixed methods research gives the researcher the: *“opportunity to compensate for inherent method weaknesses, capitalize on inherent method strengths, and offset inevitable method biases”* ([20], pg. xiii). The mixed methods approach was used as sequential transformative design. Here, quantitative data were collected concurrently with qualitative data. Both qualitative and quantitative data were analyzed separately, and the findings were integrated into the interpretation phase (with descriptive data) and subsequently used to corroborate findings from the quantitative data in the discussion of the findings. This approach permitted views and perspectives of the various diverse groups of participants to be represented

for deeper understanding of the issues under study. The quantitative data collection involved 85 respondents. The quantitative data were collected using structured questionnaire with both open and closed questions.

The liberal courses were grouped together and that of the TVET courses were equally grouped together. Simple random sampling was used to select the two departments for the study and then based on the population of each department; stratification was used to select the number of respondents based on the population of the students in the department again using simple random sampling to select cases. A total of 129 respondents made up 85 from the department of Secretaryship and Management Studies and 44 from the department of Fashion Design and Textiles.

3. Findings

Findings of the study are centered on the following areas: motivation to do more, improvement in the concepts of entrepreneurship, ability to think strategically and barriers to setting up business.

3.1. Brief Background of Respondents

The study involved two departments in Accra Polytechnic. These are Secretaryship and Management Studies and Fashion Design and Textiles. Table 1 indicates the population selected from the two departments based on gender.

Table 1. Programme of respondents.

Programme	Gender		Total
	Female	Male	
Sec. & Mgt. Studies	69	16	85
Fashion Design & Textiles	20	24	44

3.2. Linkages Between TVET and Entrepreneurship

In a bid to develop individuals' entrepreneurial mindsets and subsequently inculcate a culture of entrepreneurship as a viable alternative to paid employment, most tertiary institutions have introduced the course as part of programmes as a viable tool to developing the zeal to setting up businesses after the training especially among TVET tertiary programmes.

As part of the programmes offered in Accra Polytechnic, every students irrespective of the programme pursued is supposed to take a course in Entrepreneurship. The rationale for the introduction of the course is to inculcate in students entrepreneurial spirit to be able to think as well as initiate

some business ideas before graduating and consequently set up their own businesses. It is for this reason that students were asked to ascertain the level of improvement in the concepts of entrepreneurship. Majority of students affirmed that they had some improvement. This was reported more among the purely competence based programme (Table 2). This was shared by one of the informants who expressed optimism about the course vis a vis the students' level of understanding the concepts and the applicable skills acquired: this is what one of the informants had to say:

"I think students are very creative with respect to the way they think and their presentation during business plan development. They are able to come up with very ingenious ideas full of creativity." (An informant)

Table 2. Improvement in the concepts of entrepreneurship.

Programme	Improvement in the concepts of entrepreneurship			Total
	No	Yes	Not really	
Sec. & Mgt Studies	8 (9.4%)	77 (91.6%)	-	85 (100.0%)
Fashion Design & Textiles	-	32 (76.2%)	10 (23.8%)	42 (100.0%)

Again, when asked if students had developed strategically when it comes to making business decision, majority of respondents indicated that the course had improved their ability to think strategically. Secretaryship & Management

Studies 81 (95.3%) and Fashion Design & Textiles 30 (68.2%). There was a marked difference between the two programmes (Table 3).

Table 3. Ability to think Strategically.

Prog.	Improved ability to think strategically when it comes to making business decision			Total
	No	Yes	Not really	
Sec. & Mgt. Studies	-	81 (95.3%)	4 (4.7%)	85 (100.0%)
Fashion Design & Textiles	2 (4.5%)	30 (68.2%)	12 (27.3%)	44 (100.0%)

To be able to put the study into perspective, respondents were asked what motivated them to do more as far as their programmes are concerned. There is no denying fact that Entrepreneurship as course of study and the structure of TVET at the Polytechnic level play a complementary role. Compared to purely TVET programmes, the Polytechnic

module equips students develop attributes and theory that prepare the individual for the world of work and skills in self-employment. It is for this reason that students were asked whether the programme has been able to motivate them enough. The Table 4 gives a description of the responses.

Table 4. Motivated to go the entire mile.

Prog.	No	Yes	Not really	Total
Sec. & Mgt. Studies	-	53 (65.4%)	28 (34.6%)	81 (100.0%)
Fashion Design Textiles	6 (13.6%)	30 (68.2%)	12 (27.3%)	44 (100.0%)

Again, as far as the study of Entrepreneurship course is concerned, students are ready to go all out to develop very good ideas. Based on this response, one of the key informants was quick to add:

“I think, students are adept when it comes to practical and application of skills. To me if we are able to get the best out of our students we need to engage them with practical work so that they can as well be part of the process. The theory part is good but with TVET programmes, practicality of the programme is of outmost importance.”
(An informant)

3.3. Barriers to Setting up Business

This section looks at perceived barriers to setting up businesses in Ghana. There were some barriers that were identified by respondents; ranging from lack of support, lack of initial start-up capital, hostile business environment to lack of technical knowhow. Table 5 has captured the responses from respondents.

From the interview with key informants, an important recommendation made was for the Polytechnics to establish incubators where budding ideas from students could be transformed into workable initiative. This will help some lots of the unemployment problems the country is currently facing.

Table 5. Barriers to setting up business.

Prog.	Barriers to setting up one's business			Total
	Lack of capital	Hostile business climate	Lack of tech. knowhow	
Sec. & Mgt Studies	65 (76.5%)	-	20 (23.5 %)	85 (100.0%)
Fashion Design & Textiles	22 (50.0%)	10 (22.7%)	12 (27.3%)	44 (100.0%)

4. Discussion and Conclusion

The key issue of this study is whether TVET is a catalyst for entrepreneurial development in our Polytechnics. This was premised against the backdrop that there is high unemployment of young graduates, majority of them have gone through liberal courses. However, even with the TVET graduates there is still very little progress as far as job creation is concerned.

We cannot deny the fact that TVET coupled with Entrepreneurship as a course of study could create an enabling opportunities for graduates of TVET institutions. Indeed TVET opens opportunities for human resource capital and enriched economies.

The findings have confirmed [21]; [22]; [23] and [24] conviction that TVET programmes better equip students to develop the necessary skills and acquisition of knowledge for the job market. Therefore, if Ghana wants to be relevant in the scheme of global economic development she must prepare and provide a level playing ground for TVET institutions. It is in this vein that the government is converting some of the Polytechnics with the requisite facilities and faculty into technical universities.

TVET and Entrepreneurship could open up the scope of employment for TVET graduates, as well as playing an important role in promoting enrolment in TVET programmes and improving their image. Technical and vocational skills acquired through Entrepreneurship could help to integrate TVET with general education as well as workplace learning. With the growing role of entrepreneurship in economic and social development, and its importance for building a ‘self-

reliant population’ capable of surviving in increasingly turbulent labour markets, the learning of entrepreneurship skills cannot be left to chance. Just as Entrepreneurship has been a catalyst in moving from a preparation for those starting up SMEs to a focus on broader general skills for all, it needs to become an essential part of our educational system.

According to [25], TVET geared towards sustainable livelihoods and others like that are implied in vocational education funding. Vocational education costs more to establish and manage than the general education. However, the pattern and future trend of employment and labor market all over the world are strongly determined by nations’ investment on this important form of education.

In order to train graduates at whatever level of education for the meaningful economic relevance, there is the need to strike a balance among economic needs, job market requirement and academic skills. Maintaining the balance entails varying the theory and practical contents and duration of training particularly for technical and vocational skills. This has been attested to by respondents, majority of whom are prepared to set up their own businesses given the right economic environment and the needed start-up capital. It was also evident from the findings that more students from the TVET structured programmes are prepared to set up their businesses compared to the more liberal programmes whose main ambition is to work for people. The interviews with faculty proof to support the fact that TVET programmes are indeed, the catalyst for entrepreneurial development. A key informant was of the view that, given the requisite funding a lot more students could set up their own businesses and employ others.

TVET and Entrepreneurship are the driving force for sustainable economic development, its importance as revealed by this study and other studies to be the catalyst for entrepreneurial development in this era of globalization has also been established through the literature review. The study has shown that the young ones are ready to take up the challenge and set up their businesses given the right economic environment irrespective of whether they have undergone TVET training or not.

The development of a nation depends on the quality of the labour force and private entrepreneurs and the total output they generate per capita. A mass of skilled labour force, will serve as catalyst for entrepreneurial growth and consequently abundant natural resources into industrial products. Successful industrial development can be achieved through addressing the challenges and bottlenecks in the quality of graduates and their preparedness to venture into private businesses by so doing Ghana will be able to achieve the Sustainable Development Goals (SDGs) 1, 4, 8, 9, 10 and 12 which are spelt out in the introduction of this paper.

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