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## **ENTREPRENEURIAL BUILDING TECHNOLOGY EDUCATION AS PANACEA FOR INNOVATIVE TECHNICAL VOCATIONAL EDUCATION TRAINING FOR INDUSTRIAL AND ECONOMIC DEVELOPMENT IN NIGERIA.**

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*Journal of Research in Vocational and Technical Education (JORVTED), 2026, 5(1), 36–43*

*Publication history: Received on 23 January 2026; revised on 07 March 2025; accepted on 10 May 2026*

*Article DOI: <https://doi.org/10.5281/zenodo.20179224>*

### **Abstract**

*This paper appraised and discussed the challenges of entrepreneurship in Technical Vocational Education Training (TVET) in the area of Building Technology Education. It is necessary that Building Technology Education and all areas of TVET be increasingly entrepreneurial to encourage robust industrial and economic development in Nigeria. Research has shown that the high rate of unemployment is due to the fact that we are not producing sizable number of entrepreneurs who can now employ others. We are poor in the midst of plenty. This paper therefore attempted to set the way forward towards finding a lasting solution to this menace. It is the opinion that all hands should be on the deck towards making Building Technology Education more entrepreneurial. It suggested that, the masses should acknowledge and appreciate entrepreneurship, the Building Technology Education (BTE) students should individually decide to use entrepreneurship to save themselves through entrepreneurship, BTE students should have access to capital after graduation, Entrepreneurship week of emphasis should be introduced, Bribery and corruption should be routed out of our public and private sectors.*

**Keywords: Technical Education, Building Technology, Training, Entrepreneurial Skills, Self-reliance.**

### **Introduction**

A survey of our present economy shows that much needs to be done to enhance the economic lives of the majority of citizens of our country, Nigeria. The survey shows a very wide gap between the rich upper political class and the poor masses. The middle class does not seem to exist. According to Osisioma (2020), the middle class in Nigeria is still the same as the lower class because their salaries cannot buy much. A vibrant, fairly rich middle class is much needed to dominate the economy for anything to happen as regards economic emancipation. It is on this note that Building Technology Education (BTE) in schools and Colleges or universities needs to be made more and more entrepreneurial towards actualizing the required goal of an Innovative Technical Vocational Education Training (TVET). Building Construction is an activity that involves many trades and professions. Students of Building Technology Education should be trained and encouraged to become entrepreneurs in one of the trades learnt or seen after school. This will help to check unemployment, which is a great disease attacking the country. A building can be defined as a structure erected or constructed to provide shelter or habitation for man or animal. Building Construction can be defined as the art or science of erecting or constructing shelters, places, or habitations for man or animal. Building Technology on its own is the methodology or technique of erecting or constructing shelters (or buildings) for man or animal (Onyechere, 2025). According to Amobi (2020), a building is defined as a structure erected where it is to

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stand with the main function of shelter and habitation for man. Building Technology Education therefore is the training given in colleges or faculties of education of tertiary colleges or universities to prepare students to teach Basic Technology or Building Construction in secondary schools. The fact that these students graduate without being employed as teachers makes it very important that they should be armed with entrepreneurship. These students should be taught to use the building knowledge they acquired to exploit the labour market rather than waiting for so long for the government to employ them as teachers. Even when employed, they are not paid as at when due. Teachers are known to be owed a long list of salaries and allowances. Thus, the entrepreneurial Building Technology Education via Technical Vocational Education Training (TVET) is a good way of surviving even when employed as a teacher. Hornby (2006) defined an entrepreneur as a person who makes money by starting or running a business, especially when this involves taking financial risks. The entrepreneur is a type of manager doing business on his own. He is the owner of a business enterprise. He is answerable to none. He is a boss of his own, investing his or her money and bearing all the risks. Technical Vocational Education Training (TVET) is a systematic learning experience that is designed to fit individuals for gainful employment in recognized occupations as semi-skilled workers, skilled workers, technicians, and sub-professionals (Biose et al, 2020). It is the education studied as Building Technology Education, Electrical/Electronic Education, Metal Work Education, Wood Work Education, Automobile Education, Home Economics Education, Agricultural Education, Business Education etc. in Colleges of Education or Universities intended to raise qualified teachers in these areas. The aim is to raise skilled personnel for work or employment at the secondary level or lower tertiary level as admitted by Biose et al, 2020, but it can be made to become fully entrepreneurial. Students of Building Technology Education should be made to realize the need to imbibe the spirit of entrepreneurship for an innovative TVET towards industrial and economic development.

### **Entrepreneurship and Innovative TVET**

Entrepreneurship refers to the whole business of an entrepreneur. A major cause of unemployment in Nigeria is the lack of successful entrepreneurs. An innovative TVET and wealth creation become almost impossible without entrepreneurship. The entrepreneur is a special person with many special characteristics that a person must have before they can become successful in entrepreneurship. Jambol et al (2022) gave the following as the characteristics and traits of an entrepreneur:

1. He is not a capitalist who owns the means of production
2. He is not a manager who runs the business. He sets up a new enterprise.
3. He is not necessarily an inventor, as he does not take invention into practice. The inventor produces ideas, the entrepreneur gets things done in his own way, and not necessarily in the way of the inventor. An inventor can be an entrepreneur only when he has the ability to produce, market or make a business out of what he has invented or created.
4. He is a change agent
5. He is a leader, bold, courageous, a risk-taker, adventurous in the face of uncertainty.
6. They are people who create something new and different.
7. They are hugely ambitious, creative, vain, tough, and even ruthless
8. They are empire builders in the area of business

Jambol et al (2022) went further to list the following as the qualities of great entrepreneurs:

1. Persistence and determination
2. Supreme talent (a gift). They are creative like artists

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3. Possess joyous zest for their work – a sheer delight in the doing of it.
4. They put in every ounce of their energy and have an overpowering desire to succeed. Possess strong wills and are fiercely competitive.
5. Strive to make their mark in their own terms
6. They are flexible and innovative, can escape from the clutch of habit or code of fixed rules.
7. Knowledgeable, teachable, and willing to learn
8. Great risk takers, though may have fears of failure, yet court failure with an impressive confidence of success.
9. Perfectionists in their work, never satisfied with anything less than the best
10. Great problem solvers
11. Leaders with talents and the ability to lead without being second to anyone
12. Knows his product and how to promote it excellently
13. Open to evaluation
14. Investment prone
15. Always business-like
16. Great personalities but realistic and unique
17. Prepare for success as well as for failure
18. Create wealth more for others than themselves.

All Building Technology Education students and by extension, others in other areas of TVET who possess most of the above-listed characteristics and qualities are encouraged to look inwards for areas of entrepreneurship in Building. Others in Electrical, Automobile, Metalwork, Woodwork, etc. should do the same for the economic emancipation of the Nigerian youth. The characteristics or qualities of entrepreneurs are those that cannot be overlooked. A survey of them will show that entrepreneurship is not easy. It is not an all-comers affair. But many already have them inside them. They should simply be developed and put into use. Those who may not have them but are simply interested in entrepreneurship can learn them. The characteristics or qualities can be imbued for wealth creation. The argument on whether entrepreneurship is taught to persons or if an entrepreneur must be born no longer holds water as entrepreneurship presently is the fastest growing new field of study in America. In Nigeria, the Nigeria Universities Commission (NUC) and other stakeholders in education have made it compulsory for a course on entrepreneurship to be included in every programme, even at the secondary school level. So, anybody who decides to learn entrepreneurship to get acquainted with all the necessary details can do that. In Technical Vocational Education Training (TVET), Entrepreneurship is a compulsory course of study. This paper is of the opinion that more emphasis on Entrepreneurship apart from this coursework should be done and other ways of promoting and emphasizing it practically should be created. According to Ekedebe (2023), once the foundation of riches is properly laid and pursued, the winds of financial freedom cannot blow otherwise. A good foundation of entrepreneurship is necessary in TVET, especially in the area of Building Technology Education. This foundation as above is a prelude to wealth and riches. This is what the 21st-century Nigerian youth need. Entrepreneurship is a process involving the entrepreneur, the entrepreneurial process and the outcomes. It requires a middle-class background and education, dissatisfaction with the present state of finance or employment, and the capacity to endure delayed gratification. Delayed gratification is a major issue in entrepreneurship. In fact, it has discouraged many. Delayed gratification means the ability to make all the necessary forms of personal sacrifice during the early part of a business enterprise. This entails that an entrepreneur may not make meaningful gains or profit at the beginning of his business enterprise but may even be paying



salaries to others. But the beauty of delayed gratification is that the sacrifices made initially to ensure that the business grows to the maximum are overcompensated beyond imagination at the end.

### **Building Technology Education, Entrepreneurship and Innovative TVET**

Building Technology Education is a course of study studied in Colleges of Education (Technical) and Faculties of Education in Universities, intended to raise qualified teachers to teach Building Construction or Basic Technology in secondary schools. It is a part of the Technical Vocational Education. The task of raising qualified teachers for Building or Basic Technology is one that cannot be joked with, as our youths at the secondary technical colleges need entrepreneurship. We need to raise semi-skilled manpower at that level so that as these boys and girls leave school, they are already armed with skills to work in society. An Entrepreneurial Building Technology Education is necessary not only for the students of Building Technology Education in the tertiary institution but also for them to take the knowledge down to the younger ones in the secondary schools or technical colleges. The fight against poverty and unemployment must start from there, at the very grassroots. In the past, there was always an assumption that there are jobs out there. All one needs to do is go to school, come out, and grab a job. There are only a few vacancies out there for school leavers. They exist for a few lucky connected persons. The only way out is entrepreneurship. Somebody must create a business enterprise that can employ others for good. Our Building Technology Education students must be made to understand this. They need to use the building skills they have to go into entrepreneurship as schooling is no longer a guarantee for wealth or riches. Poissant and Godfroy (2001) enlisted two categories of wealthy men. The first are those commonly known as inheritors. These are those born with a silver spoon in their mouths. The second category consists of those often referred to as self-made men. Unlike the first group, their prosperity owes nothing to the chance of birth. This second category who have nothing to do with inherited wealth, is a point of reference in entrepreneurship. The Building Technology Education student needs to imbibe the spirit of a self-made entrepreneur. He must believe he can get rich. He must realize that wealth is a state of mind. He or she must be able to think and grow rich, as suggested by Hill (1938). School should not be blamed for poverty and unemployment, but rather should be used or exploited (That is, the knowledge there of) toward wealth creation, especially in the area of Building. The only honest ways of becoming highly rich are through inventions and entrepreneurship. The issue of unemployment and poverty will continue to ravage until those of us who can be business entrepreneurs decide to stop avoiding it and put something to work (Onyechere, 2025). According to Emmitt and Gorse (2020), a building is constructed, altered, upgraded, restored, or demolished for a variety of reasons. Whether the aim is simply to provide more space or to make a financial gain from speculative development, all building projects need to fulfill a function and meet set performance requirements, no matter how fundamental or sophisticated the client's requirements may be. From the above, it can be seen that buildings perform many functions. These functions are necessary areas that a Building Technology Education student may pursue for entrepreneurship. The works (or functions) in a building are many. Each of these areas can be used for entrepreneurial purposes. It could be a tradesman's work or even a professional work where necessary. The building architectural drawings done by these students should be a great area of function or work. They could function as draftsmen and make a living through maintenance, paintings, etc. Many entrepreneurial areas on maintenance works could be

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deduced. One can make a living out of it, if well studied and developed further. These and more are very much needed for an innovative TVET. From Amobi (2021), paintings and decorations, re-decorations, resurfacing, re-wiring, rehabilitations, demolitions, re-roofing etc. are some maintenance works that could be of interest.

### **Creativity In Building Technology Education**

Creativity is the ability to create or make brand-new things. Entrepreneurial creativity is the ability to create new things that will lead to opening of new enterprises or just the opening of new enterprises or businesses. Entrepreneurs create their own world. They create their own businesses and industries without waiting for anyone. Entrepreneurs are normally great thinkers and philosophers whose minds are ever moving to and fro, thinking of what to create so that more money or profit can come in. Many people are busy looking for jobs without ever having to sit down and think of what to do next. The following are the steps to creativity:

1. Developing the creative spirit: This is the first step in creativity. The spirit normally rules over and determines almost everything done in life. If you don't have the burden to create a new thing in life, you probably will never create one. This spirit creates an enthusiasm that moves you into the world of the requirements of business enterprises or entrepreneurs. It is very much required of our Building Technology Education students to develop this creative spirit. All stakeholders should try their best to see that this is done very well.
2. Realizing you have a talent: No man on earth is without a talent. There must be something you can do very well in life. Instead of being a classroom teacher, ordinary headmaster, or principal, why not think of starting your own school as a proprietor or entrepreneur since you already have enough experience and probably capital. The Building Technology Education student is required to look inwards in Building to see the area he is most talented in, whether in trades work or professional work. He can decide to make a business out of concrete works in block molding, interlocking, external works, tiles, kerbs, etc. These things are in high demands today.
3. Putting your talents into work: Having developed the required creative spirit and mindset, realized that you have a talent, then the next step should be action. Pray, think, work very well about what you want to create and go ahead to create a new building-oriented business enterprise or otherwise that can revolutionize the economy (Onyechere, 2025).

### **Remedies for Poor Entrepreneurial Development In Building Technology Education**

Almost every problem has some remedies or solutions. Poor entrepreneurship in Building Technology Education is a problem as entrepreneurship has been proven beyond all reasonable doubt as a lasting solution to the high rate of unemployment killing the Nigerian youth. They should be sponsored financially and otherwise by the government, individuals or the private sector. This is the best way to fight poverty and unemployment to a stand still. A good and healthy dose of financial intelligence as advocated by Kiyosaki (2002) should be given to these students during such programmes. Many Government officials are thinking of how to eradicate poverty and unemployment, not knowing that entrepreneurship is the best answer. Entrepreneurship not only get the entrepreneur financially buoyant, but also gets others employed. Our oil money should be best invested in entrepreneurship. What are we doing with the oil revenues? Those in the corridors of power must bring out this money for entrepreneurship. This is the only way the Building Technology Education student can become self-

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employed after studies, and also others in TVET. The major problem with Nigeria is nothing but corruption and political instability. These are two major cankerworms bedeviling the Nigerian State. Listen to Guell (2022):

“Trustworthy governments are hard to find in the developing world. This can be because these governments are all too often corrupt, unstable, or both. Take Nigeria, for example, sitting on one of the largest deposits of oil in the world, its long-standing civil war has prevented it from taking ultimate advantage of its resources. You may be able to get low-wage labour to get the oil out of the ground, but you have to pay bribes to the various warring factions to avoid having to worry about your skilled engineers being kidnapped.”

Continuing, Guell (2022) said, “Managers coming from vultures of developed economies are not, for the most part, comfortable investing in countries where bribery is common or expected.” All facts about corruption, instability, bribery, kidnapping, insecurity etc., are great dangers and architects of our poverty and high-wave unemployment. The government must decide to turn over a new leaf. The individual citizen must also refrain from bribery and corruption. Money meant for entrepreneurship must not be found in private accounts or pockets. With this, foreign investors will come in and help our efforts. This is a must for the development or flourishing of the entrepreneurial skills of the Building Technology Education student.

## **Conclusion**

Nigeria is a country blessed with huge oil resources as well as other mineral and agricultural resources. But it is saddening that the individual citizens wallow in poverty and unemployment. A question could be asked, “Will it remain so with Nigeria forever?”. Nigeria should realize that Rome was not built in a day and simply start somewhere to build its entrepreneurship. Nigeria has the potential to become an industrial center of Africa if only it can pursue entrepreneurship with all its strength. Entrepreneurs built America and the entire Western World. Only entrepreneurs can build the Nigeria of our dream. Since this is so, a lot needs to be done by all stakeholders to see that our Building Technology Education students are entrepreneurially inclined for an innovative TVET leading to industrial and economic development. The earlier we wake up from slumber, the more chances of survival we will have.

## **Recommendations**

1. **Acknowledgement and appreciation of entrepreneurship by the general masses:**  
The general public must rise to realize that entrepreneurship is the backbone to the liberation of Nigeria from the shackles of poverty and unemployment. It is known that power belongs to the people. We operate a democracy in Nigeria. All the people around the political arrowheads should speak about entrepreneurship and so all men as well as women.
2. **Individual decision:** If almost all should speak about entrepreneurship, it then becomes easy for the individual student of Building Technology Education to decide to bail himself out through entrepreneurship. Things are done easily when one has the support of the people around. The individual Building Technology Education student must make up his mind for entrepreneurship despite the challenges.
3. **Capital:** A major problem of many, especially those born without a silver spoon in their mouths, is capital. Capital is an important factor of production. If nothing is done about raising capital for prospective entrepreneurs, the fight against poverty and unemployment cannot be won. Something

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must be done by rich individuals, the private sector, and the government to raise capital for the Nigerian youth interested in entrepreneurship, especially my dear students of Building Technology Education. Whatever was done before now should be doubled or even tripled to reach out to many more who are suffering.

4. Entrepreneurship week of emphasis: The entrepreneurship courses introduced by education authorities in schools are a welcome idea. But it is clear these courses are taken as mere academic exercise intended just to pass exams and avoid carryover. This paper proposes the introduction of what it labels as “Entrepreneurship Week of Emphasis,” which should be a programme outside the normal classroom work. Seminar, non-academic teachings, dramas, and songs on entrepreneurship should be presented. It could be followed by competitions and exhibitions that will reveal students with great entrepreneurial ideas.

5. Government and corruption: Nigerian Government at all levels must come to terms with the fact that entrepreneurship is the key to the fight against poverty and unemployment. Giving out a few naira notes to political sycophants and admirers does not do anything to this fight. Entrepreneurship teaches how to fish, not just giving out a few pieces of fish.

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