

## Skill Acquisition and the Entrepreneurial Factor: Ceramics as an Instrument of Social Development

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### Abstract

*The sudden adoption of Entrepreneurial Studies into the National Universities Commission's Benchmark for Minimum Academic Programmes in tertiary institutions in Nigeria is a welcome move. This endorses the indispensability of skill training in the national struggle for poverty alleviation through job-creation and wealth-generation. The theoretical pedagogy in the classroom environment is a basic entry point for such courses, but in effect, it is only one hemisphere of a two-point approach for proper grounding in entrepreneurship. Perhaps no other discipline or area of study lends itself wholeheartedly to entrepreneurial project than Art— Visual and Creative Arts. To properly situate any skill, the question of raw material endowment, technical mastery and sustainability remain mainline factors to consider. This paper aspires to engage the above in the bid to locate their relevance in skill acquisition .*

**Keywords:** *Entrepreneurial Studies; Job Creation; Wealth Generation; Raw Material ; Sustainability.*

### 1. Introduction

An entrepreneur, according to the Encarta Dictionaries, is a risk-taking businessperson. He sees a business plan, considers it and plunges into it, provided he thinks there are prospects of profitability. The skill learner can also be considered as a risk taker in the sense that he takes the risk of learning a skill and anticipates the profit season at the end of the exercise in spite of what government policies may bring at the end of such training.

Job absence in Nigeria, in terms of formal employment, has become a chorus sung by its citizenry. The era of the so-called "white-collar-jobs" has come, reigned and gradually but steadily vanished. Tons of youth energy are therefore being expended by engaging in anti-social directions. The job market has continued to swell by the day following the thousands of young school leavers being churned out yearly that hurry into joblessness. Also in the mix of this jobless market is the numerical superiority of the unschooled youth which so easily provide a negative workforce for political trouble makers. But whether schooled or unschooled, a common thread runs through the horde—need.

Entrepreneurial programmes cut across all skill-based knowledge and applications. The profit expectation is the prospects of being trained to create a job space for self-employment and to pluralize openings for more jobs for others.

At a time when citizens of an oil producing and exporting nation are celebrating up to the silver jubilee of joblessness, the challenge becomes thoroughly embarrassing to all and sundry at various levels of authority, to say the least, the government. At no sector of social structure has this embarrassment been most expressive as among the youth population who vent their frustration through riotous restiveness and through other avenues like kidnapping, pipeline vandalization, assassinations and most currently, terrorist attacks and bombings. This population bracket feigns deafness to all the poster campaigns against such vices. They also ignore radio and television jingles which discourage anti-social lifestyles. Many have the desire to change but the absence of an alternative source of income threatens that desire. The popular and escapist argument is that such youth should find something else to do. This position flagrantly ignores the responsibility of the government to the youth and the jobless. Enlisting into the political thuggery is something else to do, more so with its prompt financial reward. While not supporting anti-social behaviours, it must be loudly exclaimed that this

is a nation where corruption tends to be institutionalized at every turn, just as in many other African nations. These nations have a history of weak economic policy implementation and unsustainability of such policies. Poverty rating remains discouraging. Faith for investment in such an economy is difficult. When basic social infrastructural provision is lacking, it becomes unattractive to make investments. Echeta, (2013), in his "The Sacking of a Generation: a Ceramics Socio-environmental metaphor and a Global food-for-thought" in *Ceramic Technical*, comments on non-commitment of governments to policy implementation:

*So much noise has been made about the environment and its sustainability but, in reality, the noise seems to be so many times over ahead of successes on the ground. The policy commitment and implementation do not align with social expectations...(Echeta 2013).*

In "Nairaland Forum", (2014), Nigeria was ranked the second poorest nation in the world by the World Bank. There were mixed reactions but that low rating is not likely to be far away from the truth, more so when cash at hand is not the only measure of national wealth. Anyanwu, (2012), in his "Accounting for Africa's Poverty", says, "Nigeria is one of those African countries that will not be able to reach the MDG poverty target by 2015". As discouraging as this may be, the only option left is to keep on trying. This paper provides some domesticated indices for process and eventual success.

It must be remembered that entrepreneurship is not a magic wand that commands jobs to come on board, but only a strategy which must be backed up by right and bold economic policies established in sincerity and pursued with vigour. The Visual and Creative areas of the economy lends itself to this noble prospect. This paper identifies Ceramics as a bona fide unit of this Visual Arts areas and aspires to proffer better social prospects through it.

## 2. Raw Material

Environmental raw material availability is one factor that provides a good platform for entrepreneurial skill training. The presence of the basic raw material is an added advantage in favour of sustainability for the skill and its products. It also tempers the otherwise harsh economic environment which throws a challenge to both the trainer and the trainees or the beneficiaries. Such raw material presence provides a much desired comparative advantage for product pricing and market penetration. The fear of its extinction seems not to exist. According to Professor Emeritus, Daniel Rhodes, (1975); "No doubt, more clay is being formed daily than man is able to use up in ceramics." Of the enormous potentials embedded in clay, Rhodes continues:

The ceramic medium has a rich potential. It is so various and adaptable that each culture and each succeeding generation finds it a new means of expression. As a medium, it is capable of great beauty and form, colour and texture...and utility as well. (Rhodes:viii).

## 3. Machinery And Equipment

The sophistication of today's machines and many other equipment fences them out of the type of facilities necessary for training in the areas where meaningful entrepreneurial success is expected. To provide sustainable skill training and jobs for the jobless, machinery and equipment technology ought to be internal. This means that they must be rooted in indigenous technology to guarantee access to maintenance, spare parts and expertise.

The long-standing historical background of electricity provision and supply in the author's country, Nigeria, is now an international open secret. The epileptic history has ruined companies, damaged sophisticated machines and driven investors away from sites. If this could happen in the urban areas, it becomes better imagined what is likely to happen in the sub-urban and rural areas. Let it be mentioned here that much greater population of youths, and of course, rural women who are likely to be the ultimate beneficiaries of the skill training reside in the rural communities. This brings the next crucial point— that no part of the skill production system should be dependent on electricity. In effect, all the machines as well as raw materials needed for such skill training and production should be locally available up to 95% local content.

Although there are numerous methods of ceramic production whose skill can be learnt, (throwing, hand-building, jiggering, jollying, liquid casting/stiff-mud process etc.), the ones best suited to answer to our peculiar socio-economic questions remain throwing and hand-building methods. Elsbeth S. Woody says, "The forms that can be made by this technique are obviously limited in size but not in expression." Woody was commenting on pinching technique as a method of hand-building. Harmer, (2007) declares that "Pottery is the perfect vehicle for individual ideas which give personal satisfaction". This personal satisfaction will, in this case, translate into entrepreneurial profit.

Facilities to be used in the skill training

### 3.1 Gas Kilns

Kilns are ceramic machines used in converting green wares, through thermal treatment, into biscuit wares or terracotta. They rely on heat generation, capture and retention for their operations. The interiors of kilns are usually lined with bricks which enable them to perform their thermal functions. There are basically three classifications of bricks for high temperature kiln/furnace performance. These are light, medium and high density fire bricks. The placement of these bricks inside the kiln depends on the temperature expectations of the artist or potter.

### 3.2 Throwing Wheels (manual)

Throwing wheels are the machines that offer their services for throwing, which is one of the many production methods in ceramic manufacture. They permit forms that possess some circularity--round, oval, cylindrical and so on. Other forms can then be created out of these basic forms according to the design aspirations of the ceramist or potter. Electrical throwing wheels are attractive to use but remain potential life prisoners of electrical supply. Not only do they stop work at the withdrawal of electricity, they get damaged quite easily by low voltage, surges of power and frequent and sudden power failures for which Nigeria is now known. No entrepreneurial programme or project, no matter how much money invested in it, can survive and ensure production continuity. This, of course, will signal project failure.

### 3.3 Gas Burners

In order not to fall prey to the above-mentioned epileptic supply of electricity which characterizes electricity supply in Nigeria, the gas burners here recommended are inspirating gas burners which do not in any way, depend on electricity for its operations. They do not also depend on electrical compressors for their engagement in production.

## 4. Assurance of Products and Production

The only way to sustain production is to sustain skill training. Again, if production can sustain, then the machined should NOT be dependent on electricity. The beneficiaries of this entrepreneurial programme ought to be taught this.

The processing of clay and the production techniques are simple enough to understand and practice. And because the machines are designed to be subject to indigenous technology, no parts of the machines will be imported. Having fenced out NEPA/PHCN, (the operations of the system do no need electricity), work activities can always go on according to plan.

Cost-effectiveness of machines and raw materials needed for this skill training is an attractive aspect of the system. Many of the imported equivalents of the machines are two, three, or even four times more expensive, despite the disadvantages of their foreign technology base and lack of spare parts which do not answer the current national economic questions. The products anticipated from this system include flower vases, of multiple shapes, planters and soup or salad bowls with traditional touch and tourist accent.

## 5. Some Features of the Recommended Production System and their Advantages

- (a) There is no part of the system that depends on NEPA (PHCN) for its operation. It is suitable for rural, suburban, and urban environments.
- (b) All parts of the system are produced locally including the gas burners which do not need electrical compressor for its operations.
- (c) All machines for production will be based on this new system of local fabrication.

From the above therefore, the system will enjoy the under-listed:

Availability, Accessibility, Sustainability, Convenience, Cost-effectiveness, Subjugation to local technology

For skill acquisition through training, this simple ceramic production system can be replicated in, as many as, ten communities and people trained as employees or self-employed employers of labour, within a time space of eighteen months. Everyone who presents himself or herself with determination to learn is qualified for the training. Even when one cannot read or write, one is still qualified.

## 6. Cost-Effectiveness of Machinery and Raw Materials.

In November, last year, (2007), a higher institution in this country purchased an imported electric kiln for use as an accreditation facility. The size of this kiln is 1(one) cubic foot. This means that its firing chamber capacity is, one foot in height, one foot in width, and one foot in depth. The cubic capacity is (1' x1' x1') =1 cubic foot, scarcely able to fire eight mugs at a time/ When a gas kiln, four times this, is locally built, that is, 4 cubic feet, its price- effectiveness will leave no one in doubt of where to go and what to choose in terms of the amount of money to save and the non-dependence on NEPA (PHCN).Moreover, for GAS kilns, they all come with all the burners for firing without any additional cost. Hereunder are the approximate prices for machines in 2007:

### 6.1 Kilns: (Gas-Powered)

- i. 1 cubic foot, (test kiln) - N 250,000.00 (as compared to the N 500,000.00)
- ii. 4 cubic feet - N 450,000.00
- iii. 6-8 cubic feet - N 780,000.00
- iv. 12-14 cubic feet - N 1.2m
- v. 18-24 cubic feet - N 2.4m

Each of these kilns comes with the appropriate number of gas burners which need no electrical compressors to perform.

### 6.2 Throwing Wheels (manual and collapsible)

The robust and collapsible manual wheel is estimated at one hundred and twenty five thousand naira only (N150,000.00) each.

### 6.3 Glazes.

The glazes are approximately one thousand naira for one kilogramme for a base glaze. It will be a little higher if the glaze is opaque and or colour.



Glazed ceramic wares      Glazed salad set

The process of throwing involves the centering of a ball of clay on a rotating wheel head. The revolving ball is then bored, opened and pulled to the height and breadth desired. The form can be a closed form, open form, bottle, and so on. Methods of ceramic production are many, but for this paper, the throwing method is best suited for entrepreneurial ambition. The reasons are within earshot:

1. *From thrown forms, many more creative adaptations can be achieved.*
2. *It makes the least demand on the ceramic producer in terms of technical procedure and space tolerance. The drama of production is quite captivating.*
3. *The speed of form generation is high and therefore encourages production volume.*
4. *The process can be learnt by anyone, even if the person has not gone to school for a single day in his or her life.*

### 6.4 Drying and Firing

When fresh ceramic forms are built, moisture loss or drying sets in immediately until all the making water is lost to the atmosphere. Making water is the water added to clay to make it workable or malleable as to be able to respond to pressure of manipulation. The resultant bone-dry pieces, as dry wares are referred to, are then loaded into the kiln and fired. This first firing is known as biscuit firing. Talking about the resilience and recycling of clay, Peter Cosantino, (2002)

says that "at any stage before bisque firing, clay can be reprocessed and prepared for reuse. All trimmings and unusable dry pieces of clay can be reclaimed".

The high technical demand made on kiln construction enlists the ceramic kiln as a simple, yet, sophisticated facility. The interior of this kiln represents a theatre of fiery activities involving the movement of hot gaseous fuel which build up the internal temperature. Unlike the electric kiln whose elements heat up the inside by resistance, the gases must be provided a channel of escape. This escape route is provided by the flue/chimney connection.



Demonstration of throwing technique using the manual throwing wheel with the former Governor of Cross River State, Donald Duke, and his team watch.

## 7. Conclusion

The authors of this paper have provided a blueprint for a successful entrepreneurial approach to job-creation which is likely to translate to wealth-generation. The depopulation of the job market is embedded in the diligent performance of the prescriptions enunciated in the paper. Saying and doing represent the left and right to the point of success. And if, indeed, the turning around of the fortunes of the perishing jobless population through entrepreneurial projects is a national collective desire of the Nigerian leadership, as I believe it is, then the national aspiration will be achieved ahead of time. All it will take is a sustained courageous disposition and a defiant determination to succeed. The divorce of politics from the blueprint of the project remains a sine qua non to the overall success. The right technical team woven together by patriotism and diligence should be given a free hand to operate

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