Learning from the Past: Entrepreneurship through Apprenticeship for More Successful Outcomes

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Abstract   Current statistics show that 75-80% of most business start-ups tend to fail within the first three years. However, studies have shown that traditional methods of entrepreneurship, which are based on apprenticeship, record significantly higher success rates. This paper highlights the valuable traditional practice of apprenticeship, which effectively produced successful entrepreneurs, compared to today’s high failure rate of start-ups. The paper allows a reflection on how to improve the success rates of business start-ups through the practice of apprenticeship along with classroom learning. Using the qualitative case study method, the paper provides researchers an opportunity to look into why hands-on learning tends to lead to more successful entrepreneurial outcomes, and to study what combination of theory and hands-on learning, via apprenticeship, will lead to a higher rate of successful entrepreneurial ventures. The paper thus has significant implications for both research and practice. The paper also allows practitioners obtain insights on best practices in transmitting entrepreneurial skills.

Keywords   Experiential Learning, Content Analysis, Indigenous Knowledge, Entrepreneurship, Indigenous Entrepreneurship, Indigenous Knowledge, Local Knowledge, Africa

1. Introduction

For the purpose of this study, entrepreneurship is defined as the sum of efforts to create future goods and services and create new economic, social, institutional and cultural environments (Shane and Venkataraman [1]; Rindova et al. [2]) (Ehimore [3]; Ogunremi & Faluyi [4]). In pre-colonial Nigeria, entrepreneurship was “the” way of life. Unemployment was practically non-existent because people grew up learning a skill or trade from childhood (Ehimore [3]; Ogunremi & Faluyi [4]). They used this skill or trade to earn a living as adults. Practically everyone in pre-colonial Africa engaged in one form of entrepreneurship or the other, and although some were more successful than others, the possibility of having unemployed individuals was very remote (Ehimore [3]; Ogunremi & Faluyi [4]). Everyone had a task at hand, either as an expert or an apprentice. Individuals did not seek out paid employment, because people were either masters of their tasks or apprentices. The concept of paid employment was introduced by the colonialists, who set-up ministries and designed an educational system aimed at producing workers for these ministries (Adebisi [5]). This orientation of preparing people for paid employment informed the educational structure and curriculum, which has remained in place since then.

Society has, nevertheless, continued to evolve along with technological innovations that make it possible to achieve more with less people. The demand for employees has therefore not risen as fast as the number of job-seekers being produced by the educational system. Consequently, there are fewer jobs available. This has given rise to a global unemployment crisis, albeit worse in developing countries (International Labour Organization [6]).

This paper proposes that one of the ways to tackle this globally recurring problem effectively, is by developing more entrepreneurs, who are ultimately job creators. Educational institutions can play a leading role in this regard, by providing a curriculum that not only inspires an entrepreneurial mind-set, but also prepares students more effectively for more successful entrepreneurial outcomes. The occurrence of several successful unschooled entrepreneurs, who learned via experience as apprentices, suggests that the injection of some experience-type learning may strengthen educational institutions to achieve more effective entrepreneurial learning. This paper thus explores how the application of traditional apprenticeship models, could provide more successful entrepreneurial outcomes from educational institutions.

The paper is divided into five sections. The first section presents a review of the past and present situation of entrepreneurial outcomes in terms of success rate of start-ups. The second section discusses the theoretical framework applied in this study. This is followed by a third section,
which proposes a model to achieve a higher success rate of entrepreneurial start-ups from educational institutions. The fourth section discusses the proposed methodology for this study and presents two case studies. Finally, the fifth section presents the conclusions as well as implications for research and practice.

2. A Look at the Past

In precolonial Nigeria, every family was known for a particular skill or trade. They were either farmers, fishermen, blacksmiths, herbal-healers or even baby-catchers (experts in delivering babies) (Ehimore [3]; Ogunremi & Faluyi [4]). Young people were usually apprentices, learning from either their parents, relative or acquaintance, some skill or trade with which they earned a living as adults (Ehimore [3]; Ogunremi & Faluyi [4]). This local apprenticeship system had a structure. It was for a period of six years, during which the apprentice usually lived and worked with the master, learning every aspect of the business, including values and virtues. At the end of the period, the master was expected to support the apprentice to set-up his new venture, either in cash or kind or both. Because of the sustainability of this approach, and its survival across generations, it can be argued that the entrepreneurs who emerged from this process had significantly higher success rates than those of modern day start-ups. Statistics show a high failure rate of start-up businesses with figures ranging between 70-80% globally (Moya, [7]; Fatoki, [8]). On the other hand, the traditional apprenticeship system (learning from a master through practice) effectively produced successful entrepreneurs (Onwuegbuzie [9]).

A look at the type of preparation received by those who go through the modern educational system vs the traditional apprenticeship system, shows that the apprenticeship system is significantly more hands-on, and arguably, more beneficial. (Kempner et al [10]) provides strong evidence to support this through an account of several attempts to replicate the apprenticeship systems of Germany, Austria, and Switzerland. For some clarity, the basis of comparison of modern educational system and apprenticeship is restricted to the depth of theoretical and practical exposures, and how that affects entrepreneurial learning. Modern education systems is heavy on theory-based instruction, although more recently, there have been added leisure and vocational enrichments (Shaw [11]); while apprenticeship is steeped in practice (Kempner et al [10]). With apprenticeship, learning occurs by watching and doing. The more formal classroom learning tends to be mainly theoretical, while providing little opportunity for doing. In the apprenticeship system, the apprentice receives both tacit and explicit preparation, which equips the apprentice with the competence required to run a business successfully at the end of the learning period. On the other hand, majority of those who passed through the formal system of education, tend to fail when they attempt start-ups. This suggests they have not been effectively prepared for this role and may need a stronger component of hands-on learning, which apprenticeship provides.

The high unemployment rates experienced in most countries suggest that today’s society needs more job creators than job seekers, it is therefore important to find a method that provides an effective means of preparing individuals such that more start-ups survive and thrive.

With Nigeria in context, this paper therefore examines how the apprenticeship system, which was used actively in the past, and continues to be very successful in transmitting entrepreneurial skills (Onwuegbuzie [9]), could inform current formal educational systems, to achieve a higher rate of successful entrepreneurial start-ups.

3. Current Situation

This paper will focus on the Nigerian context and how the success rates of entrepreneurial start-ups can be improved by incorporating traditional apprenticeship practices into the current formal system of education. The proposed model has the potential for replication in other climes.

As previously noted, the failure rate of entrepreneurial start-ups globally is high. The high unemployment rates in most countries also suggests that society has less jobs to offer and consequently is increasingly in need of entrepreneurs/job creators. Figures from the Nigerian Bureau of Statistics show that youth unemployment in Nigeria was as high as 80% in 2014 and has been increasing since then. This uncomfortable situation has detrimental consequences for societal well-being, as it leads many to crime as a means of survival. It therefore calls for an urgent solution.

The educational system can play a major role in solving this problem, by creating a curriculum aimed at inspiring students with an entrepreneurial orientation. For this to happen, the current system and curriculum which was structured to facilitate job eligibility, needs to be restructured to effectively develop entrepreneurial start-ups that survive. This realisation led the Nigerian University Commission (NUC), in 2007 to pronounce a policy, making it compulsory for entrepreneurship courses to be taken by students in all disciplines. The Council pointed out that there is a business side to all professional fields of work and that students should be equipped with this knowledge (Musa [12]). Nevertheless, not enough effort has been made to ensure that entrepreneurship skills are effectively imparted, as many university graduates continue to roam the streets in search of jobs. While there are efforts being made to accommodate entrepreneurship training in leading Nigerian universities, the emphasis should be on developing a system that will effectively drive the entrepreneurial training.

Considering the high success rate among those who go through the apprenticeship system, even when they
sometimes lack formal schooling (Onwuegbuzie [9]), this paper argues that it is expedient for the current educational system to leverage on traditional apprenticeship practices to deliver more successful entrepreneurial outcomes.

4. Theoretical Framework

Experiential learning theory (ELT) provides a framework to explain the effectiveness of apprenticeship in the entrepreneurial process. According to Kolb [13], a proponent of the ELT theory, experience plays a central role in the learning process. Entrepreneurial learning has been considered as an innovative, enterprising and continuous process by many scholars (Cope, [14], [15], [16]; McGill & Beaty, [17]; Morris et al [18]). Experiential learning theory can therefore best be described as how entrepreneurs, in the entrepreneurial process, obtain and convert their experiences into knowledge (Corbett [12]). ELT highlights that when learning is viewed as a process, it focuses on how it impacts individuals when molding their experiences into knowledge (Corbett [19]; Kolb [13]). The ELT differs from other idealist traditional approaches to education as it is based on the assumption that ideas are not just static and unchanging, but they are “formed and reformed through experience” Kolb ([13]: p. 26). Kolb [13] further states that individuals can get information either from direct experience or from a recreation of experiences. Kolb [13] also explains that entrepreneurs can transform their experiences into knowledge either through intention, which is a reflection of their ideas and experiences or through extension, which is a trial of their ideas and experiences in real life.

Apprenticeship is an experience building process that allows the apprentice to learn and relearn while on the job. This process allows the individual involved in the apprenticeship process to learn from the experience of the teacher/master and also learn from his or her mistakes while on the job. This form of learning therefore provides hands-on skills and abilities that prepare the individual to be more capable of independent replication. This explains how several generations of successful entrepreneurs were created in pre-colonial times. There was a prescribed learning period of six years for apprentices, after which they were considered ready to be “freed” to stand on their own, with minimal support from the teacher/master at the point of setting up their new venture. Entrepreneurs, prepared through this process were frequently successful in starting and growing their ventures. However, the current educational system in most tertiary institutions, tends to incorporate only a minimal three-month period of internship training in some courses. While this period allows for some practical hands-on learning, it may be too short for sufficient learning as the student can barely spend time in all the functional areas of any business operation/organization. Considering the importance of hands-on in acquiring both tacit and implicit knowledge, this paper explores how the practical component of learning can be strengthened in educational institutions, especially in the field of entrepreneurship. The success of the traditional apprenticeship system suggests that the combination of apprenticeship and classroom learning will provide a more effective platform for developing successful entrepreneurs.

5. Producing more Successful Entrepreneurs

In precolonial times, entrepreneurship was intrinsic to the Nigerian society. It was the way people were prepared for life. Entrepreneurial skills were passed down from one generation to the next through apprenticeship. It was thus a natural inclination for individuals. Colonialism cum industrialisation brought the advent of formal schooling, which was intended to prepare students for paid employment. The instituted educational system thus provided a pipeline that led to jobs and thus instilled a job-seeking orientation. Over time, people gradually transited from learning a skill or trade with which to earn a living, to going to school with the aim of getting a paid job. Consequently, with time, apprenticeship and entrepreneurship became less common as an ordinary way of life, as more people embraced salaried jobs. Most of those who went through the system and attempted entrepreneurship failed, because they were not adequately prepared for it. Their training was better suited for waged employment. As society evolves and technology make it possible for less people to do more, there is an urgent need for educational systems to develop people to become self-employed and consequently create jobs. This paper thus discusses a framework for developing entrepreneurs and raising current success rates of entrepreneurial start-ups, through educational institutions. The following section will explore the relationship between apprenticeship and successful entrepreneurial outcomes.

6. Methodology

To explore how entrepreneurial learning through apprenticeship can lead to more successful entrepreneurial outcomes, a qualitative case study method was applied in this study. This method was considered appropriate because the aim is to explore and illustrate apprenticeship (Jack and Anderson, [20]). Both case studies were carried out in Nigeria and were developed based on one-on-one interviews with the entrepreneurs. The cases relate how the entrepreneurs acquired the knowledge with which they have successfully carried on their entrepreneurial ventures. The entrepreneurs are of different age groups and operate in two different sectors. The entrepreneurs in the first case study is 70 years old. He is an herbal healer with no formal education and operates in a rural area. The second entrepreneur is in his forties, is highly educated and operates in the agricultural
sector. He grows tomatoes in a suburban area and supplies large volume buyers. The third case study presents an entrepreneur wood carver in his fifties, who operates in a rural context and has no formal education, but is rich in indigenous knowledge, like the first entrepreneur. The three entrepreneurs therefore have different educational backgrounds and operate in different contexts. The selection was made to illustrate how apprenticeship plays out in different contexts and with people of from different industries, backgrounds and age groups.

The analysis will be carried out in three dimensions. First, from the learning process, second, from the ability to replicate the learning successfully in a business venture and third, the ability to sustain the venture over time.

6.1. Case Study I

Tega grew up in the village. His father was a herbal healer and was well known in his community. As a boy, Tega watched and learned from his father. He helped with herbal preparations and sometimes delivered herbal potions to customers in their homes on behalf of his father. By the time he was an adolescent, he was familiar with how to make herbal remedies for most common ailments such as diarrhoea, malaria and other ailments. When Tega’s father died, he took over the trade as the healer in his town. As people had seen him work with his father over the years, they trusted his ability to continue to provide what was needed. Tega however continued to develop his knowledge after his father died. Fortunately, the herbal healers in his town formed an association, and part of what they did was to teach each other what they knew, thereby increasing the range of treatments each could offer their patients. In addition to the treatments they learned from their parents and from each other, they also discovered some solutions serendipitously. For instance, Tega developed a strange rash on his body at some point, and a friend were diagnosed with diabetes and were put on some medication. Fortunately, Tega’s friend had a son in the US, who bought and sent medication to his Dad (Felix). Felix willingly shared his medication with Tega. This lasted for some years, until he Felix died. His death signalled the end of Tega’s supply of medication from the US, and so Tega had to find an alternative.

“When my friend died, his son stopped sending the medication. He never knew his father was sharing the medication with me. I had to find a quick alternative, so I turned to herbs. After trying a combination, which I drank for some time, I went to the hospital to check my blood sugar level. The doctor, who knew my history was surprised at how well I was and asked me what I was using. I told him I was taking certain herbs and he said, whatever I was taking was working for me and asked me to continue. Since then I have been taking those herbs and my blood sugar has remained at safe levels.”

6.1.1. Analysis

The above case study shows the act of learning through apprenticeship. The case subject, Tega, learnt the business of treating ailments with herbs by watching his father, who was an herbal healer, and working with him. The process of watching closely and assisting his father, made Tega learn by doing. He mastered the job of herbal healing through years of working alongside his father.

When Tega’s father passed on, he continued the business and successfully attracted clients, who trusted in his ability to treat them, as they had seen him work with his father. He not only replicated what he learnt from his father, but was also able to create new treatments. We see this when he develops a new treatment for his rash, which worked. The process of discovering the novel treatment may have been informed by his knowledge of what different herbs treat and thus possible new combinations that could deliver effective results. He may have also seen his father do the same thing when patients came with new ailments. Tega also applied the same principle when he no longer got supplies of more conventional medication for his diabetes. He was able to develop a cost-effective herbal solution and thus replaced a more expensive conventional one. The case therefore also illustrates how apprenticeship can provide a basis for innovativeness, as watching how others find new solutions inspires an innovative mind-set that makes one willing to explore new solutions.

From the perspective of sustainability, Tega has successfully kept the business going for several years since his father passed on. His membership of the association of medicine healers, probably also contributed to this sustainability as they learn new treatments from each other and can therefore treat a broader range of ailments and consequently, more customers.

The case study thus shows how entrepreneurial learning and skills are acquired through apprenticeship, and leads to effective replication.

6.2. Case Study II

Upon successful completion of his MBA program, Dokun,
decided to go into the lucrative business of tomato farming. After much studying and research, Dokun decided that it would be better to have a hydroponic farm. Fortunately, he found an investor who believed in him and received a lump sum to start the tomato farm. As this technology was relatively new in Nigeria, Dokun travelled abroad to learn more about this farming method. He spent a month working with a farming company in Spain, to get first-hand experience of farming through hydroponics and learnt how the various equipment for hydroponics were used. At the end of the period, he felt ready to replicate the farming method in Nigeria. The company also offered to help him start off. Dokun returned to Nigeria, convinced that a successful outcome was guaranteed. He therefore paid for all the farming equipment to be exported to Nigeria, including the pesticides that may be needed.

“I was confident of succeeding as I was replicating a tried and tested process. However, to my surprise, the first harvest failed! We lost the first harvest to pests and other complications!”

The first harvest failed terribly for different reasons. First, because the weather, soil type and water were different from the conditions in Spain, and so a lot of adjustments were required to make the imported system work effectively in the new context. While Dokun tried to work with Spanish technicians to adapt the greenhouse settings to the Nigerian context, he did not know how to handle the pests, as the imported pesticides were not effective. The pests continued to attack the plants even after they had been treated with the pesticides. He eventually decided to ask the local farmers working in surrounding farms for help. From experience, the farmers knew how best to tackle such pests and so they taught Dokun how to make local pesticides using abundantly available local resources. The local pesticide treatment worked instantly and subsequent harvests have been successful.

6.2.1. Analysis

In the above case, the one month period Dokun spent in the farming company in Spain may be considered as of apprenticeship. Though Dokun felt he had learnt well enough in the one month, the failure of the first harvest suggests that Dokun may not have mastered the skill well enough to know how to run a hydroponics farm in a different operating environment. Though he eventually realised what adjustments were required for the system to work in Nigeria, it may be inferred that the advantage of apprenticing for longer periods is that a level of knowledge mastery is acquired that allows one know how to adapt to different conditions.

The above case allows a comparison between the duration of the apprenticeship (extended vs short periods) and entrepreneurial outcomes. In this case, Dokun spent only a month, learning about hydroponic farming, while in the previous case, the entrepreneur, spent many years working with his father and learning from him. While Dokun failed in his first attempt to replicate a successful hydroponics farm, the other entrepreneur successfully replicated the entrepreneurial skills he learnt from his father, without experiencing any hiccups. This suggests that the duration of the apprenticeship period has a direct relationship on the chances of a successful entrepreneurial outcome. Perhaps if Dokun had apprenticed for a longer period, he may have realised the importance of taking into consideration aspects of the operating environment such as the temperature, soil type and humidity levels in the operating environment, to adapt the process accordingly. He therefore learnt through failure, what he may have learned during apprenticeship. Nevertheless, the experience of his first failure provided a basis for subsequent successful harvests.

The case also illustrates how the accumulated experience of the local farmers, who learnt local farming techniques through apprenticeship, use this knowledge to help the modern hydroponic farmer. Although the local farmers knew nothing about hydroponics farming, they could apply their local knowledge of fighting pests in ways that was compatible with the hydroponics system. Through apprenticeship and experimentation, indigenous people have learned how to manage their ecosystem in ways that are sometimes more effective than mainstream solutions (Monaghan [21]; Subba Rao, [22]; Verma, Tsephal, & Jose [23]). Consequently, indigenous people are a repository of knowledge in their communities (Gupta et al [24]) and they pass this knowledge down from one generation to another through apprenticeship. The knowledge so passed down evolves through usage, mistakes, reformation and continuous usage.

In this case, the village farmers were experienced in dealing with these pests, which would have made it difficult for the imported technology to produce the desired result in the local context. The technology replication in this instance would have failed, but for the collaboration of the local farmers with their indigenous knowledge. Consequently, local knowledge learnt through apprenticeship can be combined with modern mainstream techniques to make them work in local contexts.

6.3. Case Study III

Fatai is a professional wood carver. He is well-known in the town in which he lives and operates. He has been carving since he was a child, as he worked with his father who was a wood carver. Fatai takes pride in the fact that he gets the jobs for the most important festivals in his town, due to his reputation as an expert wood carver.

Fatai also learnt from his father, how to treat the wood before carving it. He relates the different processes he learnt for treating wood:

I learnt how to treat and carve wood from my father. Wood is very sensitive to the weather, so it has to be treated before it is carved. This will ensure that whether it’s the dry or rainy season, the
wood will not crack. My father showed me the plants that can be used to treat wood to keep them in good condition all year round. He also showed me the plants that prevents the wood from being attacked by wood-worms. People know that my carving lasts the test of time without cracking, so they come to me and refer others also.”

Fatai’s workshop is in the backyard of his home. All his sons work with him, the same way he worked with his father. He also has other boys who are learning to become carvers also work with him. They all work on the jobs Fatai gets and can all carve wood. Fatai has earned his entire living from carving, however, because Fatai’s carvings last for years and most people already have his carvings, demand for repeat jobs has slowed over time. Further, due to urban migration from rural areas, the population in Fatai’s town has been depleting. He therefore tries to get customers from the city. Fortunately, Fatai met someone from the city, who has provided him with an opportunity to exhibit his carvings in a gallery where he gets customers who are willing to pay a premium for his high quality carvings. Referring to his herbal wood treatment, Fatai points out that the herbal treatment he uses is superior to the commercially available Solignum, used for wood treatment. This natural treatment for wood is known only to Fatai and his sons and is currently used by them alone. Fatai says he hopes to be able to commercialize it one day, but will need funding for proper packaging.

6.3.1. Analysis

The above case study again illustrates learning through apprenticeship. In this case, the period of apprenticeship was for many years, and was started from a young age. When Fatai’s father passed on, Fatai could continue the carving business successfully for several years, earning his living through this skill. He also brought up his children in a similar way, through apprenticeship in his workshop, right from childhood.

This case also presents a positive relationship between a long period of apprenticeship and a successful entrepreneurial outcome. The three cases examined provide some insights regarding the traditional 6-year tenure stipulated for apprentices to learn a skill before being set up to run their own businesses. They suggest that there is wisdom in having a prolonged apprenticeship period of at least six years. This period allows knowledge mastery that makes it possible for the apprentice to survive through changing circumstances. We see that those who apprenticed for long periods, transit into their independent operations without any hitches. On the other hand, the entrepreneur whose apprenticeship period was for a brief one month period, is challenged in his first year of operation. This therefore suggests that the apprenticeship period should last for a reasonable length of time to ensure increased chances of a successful entrepreneurial outcome.

7. Corollary

Having explored the positive relationship between prolonged apprenticeship and successful entrepreneurial outcomes, this suggests that for mainstream educational systems to effectively develop more successful entrepreneurs, there is a need to incorporate a stronger apprenticeship component in the educational system/curriculum.

This could be incorporated into secondary and tertiary levels of education. An extended apprenticeship period during the course of study would provide the advantage of learning by doing and provide opportunities for students to see how the theory they have learnt in the classroom, informs practice. They will also get a chance to develop new theories based on the experience they garner from working under the guidance of an experienced entrepreneur.

At the secondary level, which usually lasts a period of six years, this could be achieved by arranging apprenticeship opportunities during the three-month long summer holidays every year. By the end of the six-year period, the students should have gained sufficient experience in the chosen field of business. At the tertiary level, this could be achieved by replacing the 3-month internship period frequently required in some courses in most Nigerian Universities, with longer apprenticeship period of at least two years. The first year could happen midway through the course of study and the second year after the course of study. The rationale behind this is as follows: After taking courses for the first half of the course, the apprenticeship period allows students see how the learning can be applied in practice. This could also improve how the student learns on returning to school for the second half of the course. On completion of the course, starting the second year of the apprenticeship period will provide an opportunity to put academic learning into practice and also acquire more tacit learning about running a business. The student will only be considered a graduate after both years of apprenticeship have been completed along with classroom learning.

Another way of incorporating apprenticeship at the tertiary level, entails making students work in the area they are about to study before they come to class. For instance, before teaching Marketing, students could be distributed to the marketing department of different organisations to work for about three months before returning to class to study the topic for about two weeks. They then move unto the next topic, say, Finance and are sent to work in the Finance department before coming to class to study the topic. The practical experience attained in each area of study, is likely to make the classroom sessions more meaningful to them. At the end of their studies, they should be required to do a full year internship in an industry of their choice as a capstone project. While this may prolong the period of study, the students are likely be better equipped to start and run ventures and therefore become more successful entrepreneurs.

These models therefore require a closer collaboration
between educational institutions and industry. Industry will also benefit as those who decide to take up paid employment will be more job-ready when they graduate, given the level of practical learning imbibed during their period of study. In conclusion, both theoretical and practical knowledge are necessary for students to be equipped to operate successfully as entrepreneurs and also to innovate and continuously create value.

8. Conclusions

This paper started by explaining the indigenous practice of apprenticeship as a means of effectively transmitting entrepreneurship skills, which are very relevant today. The practice of apprenticeship, which is a form of learning by doing, has successfully developed entrepreneurs and ventures that flourished. The paper therefore proposes the incorporation of the apprenticeship model of learning in mainstream educational systems, as a means to effectively develop successful start-ups, entrepreneurs and even Managers. The underpinning theory applied in this paper is experiential learning theory (ELT), which supports learning by doing. The paper thus proposed the incorporation of a stronger experiential component in mainstream learning structures. Finally, the three case studies revealed that an extended period of apprenticeship allows more learning to provide a better grasp of how to manage different situations that arise in the course of an entrepreneurial process. Consequently, an area for future research could therefore be to find out the optimal period of apprenticeship to allow for successful entrepreneurial outcomes.

Finally, as society begins to present a situation where there are less jobs and therefore beckons the need for more job creators, it is vital and imperative to train students to have an entrepreneurial orientation and improve the success rate of new ventures and therefore drive a transformation that leads to sustainable development. The paper therefore holds key learning points for policy makers involved in the design of the curriculum for different educational institutions, as well as for academic research. Future areas of research include determining the success rate of start-ups by mainstream scholars who have been exposed to longer periods of apprenticeship.

REFERENCES


