

Impact of Nigerian University Entrepreneurship Education Programme on Venture Creation: A Review

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Abstract

Entrepreneurship is increasingly being recognized as an important driver of economic value, productivity, innovation, and employment, and it is widely accepted as a key aspect of modern economic development. However, because of millions of graduates' inability to secure jobs, young people are now apparently searching for entrepreneurship education that can equip them with the necessary entrepreneurial knowledge and skills to succeed in running personal businesses or to create a job from seizing existing entrepreneurial opportunities. Most of the higher institutions of learning in Nigeria have responded to this demand by introducing entrepreneurship courses to students with a view to promoting new venture creation as well as a professional entrepreneurship career. This study adopted a systemic literature review to study the common themes, and analyze patterns, insights from different studies, thereby providing a synthesized view of the overall impact of the university program on students' entrepreneurial outcomes. It was observed that if entrepreneurial potential were identified early and nurtured throughout educational experience, the result both for the individuals concerned will be making more successful entrepreneurs and for society would be more new ventures created. The study concluded that entrepreneurship training for young people in the art of venture creation is paramount to university education in recent time. In this context, it is of primary importance to understand whether current entrepreneurship education as provided by various higher institutions in Nigeria has significantly impacted on entrepreneurial behaviour and new venture creation.

Keywords: Entrepreneurship, University Spinoff, Venture Creation, University Entrepreneurship Education, Entrepreneurial Graduates.

Introduction

Entrepreneurship is increasingly being recognized as an important driver of economic value, productivity, innovation, employment, and it is widely accepted as a key aspect of modern economic development. The general acknowledgement that entrepreneurship is a dominating factor driving the emergence and growth of new businesses has led to a consistent growing interest and acceptance that entrepreneurship plays a crucial role in economic development and job creation. Consequently, it draws the attention of policy makers at all levels of government to establish and implement comprehensive approaches for venture support such integrated approach consists of programmes such as the establishment of innovation centres, incubators, technology transfer offices, Science parks

and venture capital operations. In addition, there are other academic institutions such as Polytechnics, Universities and Research institutes which have also been singled out to contribute by offering appropriate entrepreneurship education courses and training (Lena & Wong, 2003).

Consequently, the last decade has witnessed a commensurate increase in the provision of educational programmes to encourage and enhance entrepreneurship. This is reflected in the considerable investment in appropriate entrepreneurship education programmes and training aimed at new venture creation in universities and other higher institutions of learning in the country. Notwithstanding the relationship between entrepreneurship education and the students' intention to create new ventures, a major area of worry has been the impact of university entrepreneurship education in relation to new venture creation as evident in the inability of graduates to create start-ups for themselves and others thus achieving entrepreneurial success.

Given that entrepreneurship education provides a gateway for learning for students and serves as a preparatory function in relation to new venture initiation, yet entrepreneurship education alone appears to have failed in explaining the entrepreneurial phenomenon more especially if the beneficiaries do not believe that it would assist them in creating new venture and/or managing a successful one. In fact, it can be said, therefore, that entrepreneurship education does not by itself produce the needed entrepreneurial capacity, but unfortunately may inadvertently reduce this capacity through overdose of lecturing and limited involvement of the learners (Baumol 2004)

Therefore, entrepreneurship education has the onerous duty to facilitate more knowledge-intensive start-ups incorporating extensive high-end innovation in existing firm to justify its role as the basic drivers in long-term job creation. In the light of the foregoing, the aim of this paper is to investigate the approaches to Entrepreneurship education in Nigerian universities and their relevance in preparing the students for assuming entrepreneurial activity on graduation and thereby contribute to the existing approaches to finding lasting solutions to graduate unemployment in the country. In order to achieve a proper investigation, the following specific objectives are investigated:

- i. examine the effect of entrepreneurship education on the preparedness of entrepreneurial career of selected graduates,
- ii. investigate the influence of entrepreneurial skills on new venture creation among the graduates of selected schools,
- iii. find out the impact of university spin-offs on new venture creation among the graduates of selected schools,

Literature Review

Entrepreneurship education is designed to provide the requisite change in the orientation and attitude of the recipients by equipping them with the skills and knowledge necessary to start and manage a business. It is to facilitate the development of entrepreneurial behaviours, skills, and attitudes with the aim of building the capacity needed for

entrepreneurial activity. According to Fayolle et al, (2006), Entrepreneurship education refers to “any pedagogical program or process of education for entrepreneurial attitudes and skills. Extant literature reveals that entrepreneurship education plays a pivotal role in developing intention among students as indicated in the strong growth in their attitudes and intentions which are the precursors to new venture creation. (Anwar et al., 2020; Anwar & Saleem, 2019; Roy et al., 2017; Anwar & Saleem, 2018).

As suggested by Li-n_an and Fayola (2015) entrepreneurial intention is the immediate, measurable aftermath of entrepreneurship education and students’ attitude toward entrepreneurship is expected to get stronger (Anwar et al., 2020a; Bae et al., 2014. Nabi et al. (2017 and; Bazan et al. 2019). University Venture Creation Programmes (VCPs, henceforth) are also known to have great impact by influencing entrepreneurial intention positively and enhancing the attitude and entrepreneurial intention by imparting in students the essential behavioral traits that an entrepreneur needs to have to handle uncertainties and difficulties to be successful (Anwar & Saleem, 2019; Neck & Greene, 2011).

It was the realisation of this that is, the Federal Government of Nigeria directed all Higher Education Institutions (HEIs) to include Entrepreneurship Education as a compulsory course for all students with effect from the 2007/2008 academic session (Aliu, 2008). The goals of Entrepreneurship education include (a) promoting an individual entrepreneur’s personal knowledge, (b) developing the ability to distinguish business opportunities, (c) enhancing main knowledge and skills in order to create an effective and flexible program for a risky business, (d) .fostering the ability to identify types of business within the strategies available for entrepreneurship, and (e) acquiring the required skills and current methods of collecting data needed for the marketing of a new business (Roach, 1999).

In the same vein, Osuala (2010) suggests the objectives of Entrepreneurship education to include: (a) providing meaningful education for youth which could make them self-reliant and encourage them to drive profit and be self-independent, (b) assisting graduates with the training and support necessary to help them establish a career in small and medium businesses, (c) equipping graduates with training skills that will make them meet the manpower needs of the society, and (d) providing graduates with enough training in risk management that would make them face uncertainty arising from their businesses, amongst others.

Methodology

The main objective of this qualitative review work is to consolidate and analyze qualitative studies that have investigated the impact of the Nigerian University Entrepreneurship Education Program on venture creation. The review seeks to identify common themes, patterns, and insights from different studies, providing a synthesized view of the overall impact of the program on students' entrepreneurial outcomes. A comprehensive search was conducted in academic databases, such as Google Scholar, PubMed, Scopus, and relevant university repositories, to identify qualitative studies related to the impact of

entrepreneurship education on venture creation in Nigerian universities. Keywords and search terms included in the search were "entrepreneurship education," "university entrepreneurship training," "graduate venture creation," "qualitative study on Nigerian graduate entrepreneurs," and related variations. The quality of the selected qualitative studies was evaluated using established criteria for assessing rigor and trustworthiness of qualitative research, such as credibility, transferability, dependency, and conformability. Various studies were assessed to identify any discrepancies that were resolved through discussion and consensus. The qualitative review provided valuable insights on the impact of Nigerian entrepreneurship education program on venture creation. By synthesizing the findings of multiple qualitative studies, the review contributes to the existing knowledge on the effectiveness of entrepreneurship education in Nigeria universities and offer implications for policy, practice, and future research in related field of study.

University Entrepreneurship Courses

Policy makers are increasingly aware that improved educational standards and research outputs may not by themselves result in a higher level of knowledge-spillover from universities and other research institutions to society. This realization has necessitated an argument for a change in the educational system in general and those of the universities, for entrepreneurship teaching and training to achieve overall economic goals. The arguments suggest that entrepreneurship teaching and training should permeate the entire educational system to such an extent that all young people, at whatever educational level should be exposed substantially to entrepreneurship in theory and praxis during their time in the educational system. (Audretsch and Keilbach 2007, Bager, 2010).

The university entrepreneurship courses should attempt to offer a total entrepreneurial education to the students beginning from the various departments, faculties and entrepreneurship laboratories to the outside world. This contextual relationship would include the University Faculties covering all the departments and laboratories in providing a sound theoretical base.

Further, the universities should establish Entrepreneurship Centres where Entrepreneurship skills, are embedded into the students through the operation of Venture Creation Programmes during which students acquire the skills in writing Business Plans, Venture Registration, Business planning and be actively involves in Projects under the supervision of lecturers and external mentors, and through participation in spin-offs where they would be exposed to real-life experiential learning. This would reduce the risk propensity usually associated with the liability of newness.

Additionally, the students should be exposed to the roles being played by the industry in the launch of venture ideas and research spillovers to the marketplace (Babic & Savovic, 2018). This would offer them the opportunity of meeting financial firms, business associates, mentors and other stakeholders who would support in the commercialisation of their business ideas.

Similarly, a good university entrepreneurship education would expose students to the important role of the government in the facilitation of an entrepreneurial ecosystem for the nascent and young entrepreneurs whose ventures are likely to suffer from the twin liabilities of newness and smallness. This is achieved by acknowledging the roles being played by the different government agencies, the establishment of physical and digital infrastructure such as Science Parks and Innovation Hubs, business consulting services all of which can facilitate their venture creation ambition. This relationship is demonstrated in the figure below.

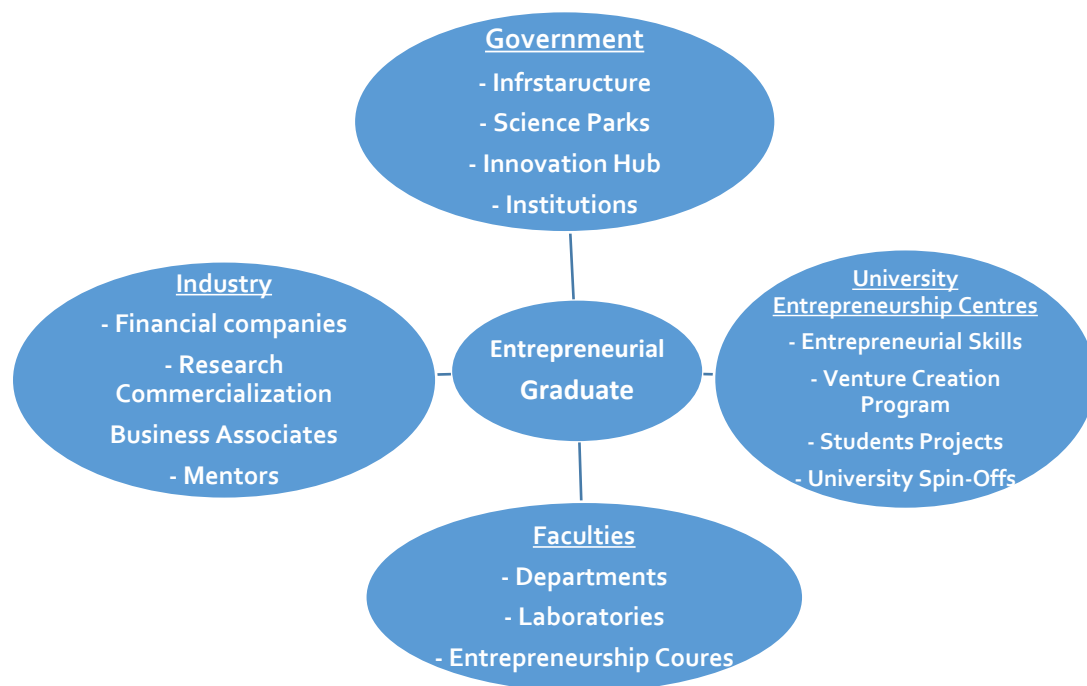


Figure: A Functional University Entrepreneurship Education Course

Source: Authors Conceptualization, 2023

One of the critics was Bager (2011) who wonders if universities including the ones in Nigeria are ready to assume the responsibility of making entrepreneurs out of their students. Giving three reasons, he argues, first, that university educators tend to focus upon and embrace their particular disciplines, which is incompatible with entrepreneurship training in cross-disciplinary settings, second, - they are more comfortable working with the transfer of bits of established knowledge rather than the facilitation of learning processes and creation of new knowledge, and, third, they often distance themselves from praxis, understanding their role as indirect preparation to future practices rather than direct practical and vocational training (Scharmer 2007, in Bager, 2015). Moreover, one very important component of entrepreneurship, i.e. new venture creation, tends to be seen by universities as a practical, a-theoretical effort, which is difficult to teach at theory-driven institutions

Even though universities are regarded as essential in the change process, they are often reluctant to align this expectation. Instead, the academia regards new venture creation, which is a fundamental component of entrepreneurship as being a- theoretical, and, therefore difficult to teach at theory-driven institutions. Thus, university administrators often regard graduate entrepreneurship as an add-on activity, reserved to be useful at the end of the study period, when students are 'handed back' to society, during which such students are prepared for either a graduate career or as employees. Venture Creation is not considered as something fundamental to the 'heart and soul' of universities, but because of multi-disciplinary education to earn some general academic qualifications such as the ability to analyse, generalise, reflect and participate in academic debates.

In this wise, universities, therefore, tend to emphasize imbibing established bodies of knowledge, understanding theory and, the deeper principles behind specific knowledge (Whitehead [1967, in Bager, 2010). Nonetheless, it is gradually being recognised that certain knowledge, skills and attitudes for entrepreneurial action can now be taught. Even though this position was disputed by some scholars, notably Scharmer & Käufer (2000) who argued for a change in the university culture and strategy, yet entrepreneurship education remains only tolerated at most universities rather than embraced, in spite of its expansion, consolidation and recognition as a discipline.

University Venture Creation Programmes

Venture Creation Programmes (VCPs, henceforth) are highly applied business-development degrees, delivered in universities and other Higher Education Institutions (HEIs), which place an emphasis on experiential learning leading to the creation of new ventures. It involves the participation of students in either an undergraduate or a postgraduate accredited programme of study through the active exploration of actual business start-up (Lackéus & Williams Middleton, 2011). This methodology is a highly contextualised experience, allowing learning activity to synchronise with key moments in the venture development lifecycle (Bozward & Rogers-Draycott, 2020).

It is realised that the methods of teaching and learning are insufficient especially when students are to be equipped with the knowledge, skills and experience required to create and manage entrepreneurial businesses (Higgins *et al.*, 2013). Policy makers as well as researchers are increasingly becoming aware of the need for entrepreneurship students to actively participate in and control their own experiential learning to develop as entrepreneurs (Bell & Bell, 2020, Larsen & Holtan Lakså, 2021) The VCP approach acts as the establishment of an entrepreneurship education programme which utilises the creation of a real-life venture as the primary learning vessel (thus involving venture creation as part of the formal curriculum), including intention to incorporate a business. This involves experiential learning, interdisciplinary, process-based curriculum, an external network of resources, and contribution to regional economic development.

University-based venture creation is increasingly considered as an activity that can be potentially facilitated through specialized venture creation-based entrepreneurship

education which can be useful in commercialising inventions, projects, university resources thus creating more opportunities (Barr et al., 2009; Siegel & Phan, 2008, Meyer et al., 2011). The VCP approach acts as the establishment of an entrepreneurship education programme which utilises the creation of a real-life venture as the primary learning vessel (thus involving venture creation as part of the formal curriculum), including intention to incorporate a business. This involves experiential learning, interdisciplinary, process-based curriculum, an external network of resources, and contribution to regional economic development.

VCPs are known to emphasise the utilisation of experiential learning as the core process of learning entrepreneurship in educational settings in a “learning *through* approach.” Students are groomed in the process of venture emergence through company incorporation, business plans, and venture management among others. This “learning through approach” in entrepreneurship education develops dual roles in which students are acting as entrepreneurs while also being students (Lackeus & Williams-Middleton, 2015; Hagg & Kurczewska, 2019; Nielsen & Gartner, 2017, Haneberg & Aadland, 2020)

Ollila and Williams-Middleton (2011) suggest that new venture creation in the university can be facilitated through an integrated approach consisting of both education and incubation during which students are made to “test the waters” by attempting to create real-life ventures in collaboration with complementary stakeholders such as academics, investors, and practitioners. Through such exposure, mistakes are made, while corrections are offered and learning outcomes emerge from the real experiences.

A venture creation program in a university setting is, therefore, a full-fledged and advanced type of entrepreneurship education aimed at producing entrepreneurial graduates in which students are attracted and helped to develop high levels of entrepreneurial intention, making these programs a sort of a steppingstone for further entrepreneurial activity after graduation. The venture creation program design is practice-oriented, embedded in the context of entrepreneurial action including engagement with professionals, mentors, and other stakeholders to develop entrepreneurial skills and competencies (Alsos et al., 2022).

A popular form of VCP programmes being run at the Kwara State University, Malete, Nigeria employs more traditional modular course structures to deliver content and facilitate progression through the degree. Herein, students from all the faculties in the Undergraduate degree courses are divided into various groups which are expected to actively look to create businesses variously through, and alongside their modules, often with additional support from mentors and business professionals as practised in many VCP programmes (Lackeus & Williams Middleton, 2015; Smith & Shaw, 2018; Bozward & Rogers-Draycott, 2020).

Assessing VCPs

In order to gauge their contribution to the development of entrepreneurial intentions of students, the outcomes of VCPs should be assessed for relevance. Common measures in assessing the outcomes of entrepreneurship education include: (a) numbers of start-ups (and founders) produced (Jones et al., 2017), (b) increased intention to engage in start-up

behavior, as distinct from actual start-up behaviors, (c) post-education entrepreneurial activity (Bae et al., 2014). Going forward, however some scholars argue that assessment and evaluation of the outcomes of entrepreneurship education should move beyond the singular focus on venture creation but to also pay attention to the human capital development arising from it. (Eesley & Lee, 2019).

In this wise, research has shown that entrepreneurship education has built capacities which develop competencies that enable graduates to handle uncertainty, solve problems, collaborate in team settings, and build informed networks (Hytti et al., 2010; Neck & Corbett, 2018). The implication is that graduates are enabled to develop their abilities so as to be useful in the society to manage their own ventures as owners or engage in value-creating initiatives such as intrapreneurship or corporate entrepreneurship (Kuratko & Morris, 2018). A complimentary contribution was made by Lackeus and Middleton, (2018) in suggesting five methods of assessing VCPs which they labelled as (a) Performance, (b) Reflexive, (c) Peer and Self-Assessment (d) E- assessment (e) Constructive Alignment.

According to them, Performance assessment is concerned with allowing students perform meaningful and hands-on real-life tasks in which case they are assessed based on their task accomplishment. This method requires students to perform tasks where they can demonstrate their knowledge and skills in real-life environment that mirrors or even represents 'real-world' situations. One benefit derivable from this kind of assessment is the up skilling of the students to face more complex situations. Performance assessment is common in the arts such as dances, music, acting as well as vocational education as exemplified in repair works, light constructions, laundry services, fashion design, and hairdressing among others.

Reflective assessment, the second method, encourages students to concentrate on, and review their own learning by reflecting on such learning experience either as individuals or a group with the aim of improving their learning potential through step-by-step self-evaluation of what has been experienced in the course of carrying out their tasks. This provides opportunity of the feedback to achieve a higher level of understanding.

Peer and Self- assessment is another method in which students are involved in assessing one another in terms of knowledge, skills and/or performance in awarding marks or judging each other on some agreed criteria. It is akin to self-assessment in that it encourages students to judge their own performances and achievements. Peer and self-assessment not only serve as a means of assessing students but also prepares a path towards improved learning and academic performance (Isaacs et al. 2013).

E-assessment, the fourth method, involves the use of computers to support assessment especially in computer-based tests ranging from simple computer-based tests with multiple-choice questions to complex and multimedia-rich simulations, games, case studies and e-portfolios. It can be employed in areas such as distribution and collection of responses as well as construction and marking of questions and tasks. Constructive alignment which is the fifth method is based on a principle stating that teachers should align what the students need to do in order to learn with what is being assessed (Biggs and Tang

2011). Students' involvement in activities should be aligned with the learning expected to be achieved, and should therefore be assessed on those activities. The approach requires teachers to modify their approach to increase the level of clarity on what students need to do in an attempt to achieve greater understanding.

Graduate Entrepreneurship Skills

University graduates have to be skilled, re-skilled and up-skilled to enhance their competence and relevance in organisations either as employees or employers. The acquisition of such skills plays a vital role in securing and sustaining their career progression. These skills include creativity, critical thinking, innovation, collaboration, leadership, perseverance, and networking which become imperative in order to perform effectively as part of a venture creation team. Specifically, Gumel (2018) identify some skills necessary for the creation of new business ventures. Such skills, amongst others include (a) creativity and innovation, (b) alertness to be able to recognise opportunities, (c) tacit knowledge for patterns and prototyping, (d) domain knowledge, absorptive capacity, interpretation abilities and (e) market knowledge and resourcefulness. Others include (f) risk and responsibility, (g) judgment (h) self-efficacy, and (i) socialisation and networking. These skills which are embedded in entrepreneurship education have their focus largely on creativity and innovation and thus have become very attractive to investors, employers and policymakers because they drive growth through socio-economic activity and create jobs. (Abdul Gafar, 2020).

In a VCP, entrepreneurship education is designed to support students in developing the competencies they require to transform opportunities into viable business, using the experience of developing a real-life venture as the main learning vehicle thus achieving a useful outcome as the empirical base. This is because the design of the education integrates practicing entrepreneurship as the baseline for learning. (Lackeus & Williams-Middleton, 2015; Hagg & Gabrielsson, 2019).

Consequently, VCPs have been known to deliver not just the declarative (know-what) and procedural (know-how) knowledge important to carrying out entrepreneurial activity but also embody learning of a deeply seated "why" for everyone engaged (Hagg, 2017; Williams-Middleton & Donnellon, 2014).

University Spin-Offs

University spin-off firms, also called 'university spin-outs' or 'research related start-up ventures' are widely acknowledged in the literature as one of the key drivers of economic change and growth (Bercovitz and Feldman 2006). Academic entrepreneurship can be described as the process through which individuals or groups, whose projects in the universities or research centers, utilise the knowledge so developed during their research in order to found a company, i.e., academic spin-offs (Miranda et al., 2017). A spin-offs firm is a brand new company which is formed by employees who are part of a university or research institution or an intellectual research. University spin-offs are usually founded on

some technological advance rather than for the purpose of marketplace competitive advantage. Therefore, most founders are engineers and scientists who may possess some little knowledge and experience in product marketing/sales and management experience. The formation of university spin-off firm is an output of university research related activity and an outcome of the university's effort at technology transfer.

Pirnay et al. (2003) define university spin-offs as new firms created to exploit commercially some knowledge, technology or research results developed within a university. Van Burg et al. (2008) propose a framework for creating university spin-offs, derived from a theory-based meta-analysis of two literature reviews and a book on university spin-offs. Important issues in the framework include:

- (a) creating a university-wide awareness of entrepreneurship opportunities to stimulate the development of entrepreneurial ideas, and subsequently screen entrepreneurs and ideas by programs targeted at students and academic staff;
- (b) supporting start-up teams in composing and learning the right mix of venturing skills and knowledge by providing access to advice, coaching, and training;
- (c) helping starters in obtaining access to resources and developing their social capital by creating a collaborative network organization of investors, managers, and advisors;
- (d) setting clear and supportive rules and procedures that regulate the university spin-off process, enhance fair treatment of involved parties, and separate spin-off processes from academic research and teaching; and,
- (e) shaping a university culture that reinforces academic entrepreneurship by creating norms and exemplars that motivate entrepreneurial behaviour.

The learning environment as practised in many universities is commonly expanded beyond the faculty to include nearly every student other institutional actors supporting innovative activity as well as actors external to the university in the role of investors, advisors, mentors, and business competition panels (Lundqvist, 2014).

In the case of Kwara State University, Malete, Nigeria, for example, all students are allocated into different entrepreneurship projects, under the supervision of staff supervisors. Projects from each of the groups are evaluated during the Global Entrepreneurship Week (GEW) by the university staff and other institutional stakeholders including mentors, sponsors, and investors. University spin-offs ventures can be either sponsored or unsponsored. Sponsored spin-offs are largely the result of university research projects which apply specific knowledge inputs in the development of their initial core technology. Such high-tech ventures derive significant benefits from localized knowledge spillovers emanating from research and human –capital creation by the universities (Audretsch et al. 2005).

The Unsponsored spin-offs, on the other hand, are the results of ideas developed outside of the university setting, such as the private sector which rely largely on generic broad knowledge bases for the development of innovative products and services, which have enabled the venture-creation process. Regrettably, Universities are usually clueless about

what needs to be done to make a project attractive to industry consequently making little money from licensing inventions. Further, university spin-off firms also face other obstacles such as the liability of smallness and newness in achieving the required reliability and credibility, which could hinder market entry needed to earn consumers' patronage and reputation. However, despite these challenges, Nigerian university students have created some start-ups. Seven of such prominent start-ups include:

- (a) Jobberman – started by the trio of Olude, Awoyemi and Adewunmi all students from Obafemi Awolowo University. The start-up was created to provide employment opportunities to job seekers
- (b) Printivo This was created by Oluyemi, Ojo and Adeogun from Ladoke Akintola University of Technology-Oluyemi Ojo, was involved in printing designs
- (c) 3Sharphire (Push cv) – an ICT venture was created by Ifezue, Eweniyi, Chibueze, Kanu, Chinagorom, Akintola of Covenant University
- (d) CashEnvoy created by Olaoluwa and Awojoodu –Recharge Cards, Selling IT hardware
- (e) ToLet - an estate management firm was created by Ayeni, Balogun, Ogundipe, Eludire of OAU
- (f) MyMusic - It was created by Damola, Dolapo and Tolu who studied Computer Science at Babcock University
- (g) Gamsole- a Gaming machine was created by Olaniran from OAU.

The Guardian reported the Vice Chancellor claiming that (University of Lagos (UNILAG) patented 11 inventions in 18 months between 2018 and 2019. This was reported to have attracted 7 billion Naira research grants – (The Guardian Nigeria, 4 December, 2019. In the case of Patent Application., the National Office for Technology Acquisition and Promotion (NOTAP) revealed it received a total of 1079 patent applications from Nigerian tertiary institutions and granted 400 national patents through the Ministry of Trade and Investments as of May, 2022 (NOTAP website- Punch. 19 July, 2022). This implies huge progress in patenting of innovations among research institutions in Nigeria. However, the extent to which these innovations get to the marketplace is the fundamental issue that is critical for research institutions and the industry to explore.

Commercialisation of University Research

The advent of entrepreneurial universities saw the emergence of a series of processes which focusses on the transfer of knowledge and technology from universities to companies and the market. One of the ways by which universities commercialise knowledge is through the formation of academic spin-off ventures that are initialised in university environment so that the intellectual property, created within such academic institutions could be utilised for the development of products and services for the market (Visintin and Pittino, 2014). This view was shared by Etzkowitz & Leydesdorff (2000) who classify universities into two models namely Mod1 and Mod 2. employing the method of organising and the use of results of scientific and research process. In the case of Mod 1, the research develops within the autonomous scientific areas and that is led by the interests

of academic community. For Mod2, however, research is interdisciplinary, multidisciplinary, and transdisciplinary, and develops in the context of the possibility of application in a commercial environment. This is referred to as the "Triple Helix" concept in which universities have special role in the encouragement of innovation through specific relationships and interaction between previously separated segments – universities, industry and consumers thereby improving the economy of the country.

The Triple Helix Model can be described as an interactive network that brings together the universities, industries and governments highlighting the important role of the academia with the active partnership of the industry and the committed support of the government. Even though some attention has been paid to the characteristics of academic spin-offs and to the process behind their creation (Di Gregorio & Shane 2003; Grandi & Grimaldi 2005). Limited research has been conducted for analyzing their effect on developing entrepreneurial intention in the academia (Feola et al. 2017, Samo and Huda, 2019). The creation of academic spin-offs is a desirable vehicle by which knowledge and technologies are transferred from universities to private sector for the purpose of commercialization, hence, strengthening the relations between the universities and the local community (Czarnitzki, et al., 2013). The review of literature on academic spin-offs reveals some of the factors that influence the success of these research-based ventures. These factors include (a) the quality of universities, (b) the commercial ability of universities (c) the nature of the financing by universities. (d) regional infrastructure, and (e) the policy of the protection of intellectual property at the university. (Smilor and Matthews, 2004; O'Shea et al., 2005; Clarysse et al., 2011; Bigliardi et al., 2013, Muscio et al., 2016). A model for commercialising university known as Acadopreneurship (i.e. turning research outputs into viable business and start-up ventures.) was proposed by Prof Aibinu of Summit University seeking a collaboration between the university, the industry, the government, and the host communities. (Nigerian Tribune, December, 2022).

Conclusion and Implication of the study

This qualitative review aims to explore and assess the impact of Nigerian university entrepreneurship education program on venture creation. The study seeks to synthesize existing qualitative research on the topic to gain insights into the experiences, perceptions, and outcomes of the participants in the entrepreneurship program. The study adopted qualitative methodology to review the impact of the Nigerian university entrepreneurship education program on venture creation by systematically reviewing and analyzing relevant literature. This study contributes to a comprehensive understanding of how entrepreneurship education within universities influence students' abilities to create and sustain successful ventures. The qualitative approach enabled the researcher to delve deep into the experience, perceptions, and insights of individuals directly involved in the entrepreneurship program.

This study through systemic review has brought to bear the need for university entrepreneurship programme to spur new venture creation among graduates. Observing

that Nigeria was rated 124th in the global innovation ranking in 2021 Global innovation Index in spite of having over 300 tertiary institutions, new venture creation driven by entrepreneurship programme will foster startup initiatives among graduates. More so, it will aid the output of viable academic research commercialization of sustainable business ventures. This will result in employment generation among graduates who would be pushed to use their entrepreneurial skills and innovation into money-making ventures capable to compete globally in the long run. The study also brought to bear the tripartite role of the triple helix model in training, recognizing opportunity and creation of new ventures.

The duty of the government in the helix is to enact regulations, create an enabling environment with adequate infrastructure for the commercialization of academic research. More specifically, the government must be actively involved in the provision of financial incentives for spin-offs, physical provision of incubators and science parks, and the digital establishment of innovation hubs to grant open access to nascent entrepreneurs. Further, the role of the industries as the second helix occupies an important factor because the industry covers the ecosystem of firms or companies that could play one role or the other in the venture creation and promotion. This may include the banking industry, the regulatory bodies, the trade associations, and the capital market amongst others. Essentially, in this helix is the provision of finance such as venture capital, stock exchange capital raising, human capital development through the sharing of resources and competencies and developing the professional attitudes for start-ups, exchange of experience, knowledge, and information. The third helix is the universities, who are expected to direct their attention on policies that promote practical entrepreneurship by establishing functional platforms for academic spin-offs that can mobilize investment and accumulation of resources.

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