

UNIVERSITY OF PORT HARCOURT

**THE ACADEMIC AS AN ENTREPRENEUR:
SUSTAINABLE ACADEMIC CAREER IN AN
UNSTABLE ECONOMY**

Valedictory Lecture

By

PROFESSOR JOHN IGEMO IKIMALO

*MB,BS (Benin) DRH (L,pool) FMAS, FWACS, FICS, FAMedS
Department of Obstetrics and Gynecology,
Faculty of Clinical Sciences, College of Health Sciences*

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Programme

- 1. GUESTS ARE SEATED**
- 2. INTRODUCTION**
- 3. THE VICE-CHANCELLOR'S OPENING REMARKS**
- 4. CITATION**
- 5. THE VALEDICTORY LECTURE**

The lecturer shall remain standing during the citation. He shall step on the rostrum, and deliver his Valedictory Lecture. After the lecture, he shall step towards the Vice-Chancellor, and deliver a copy of the Valedictory Lecture and return to his seat. The Vice-Chancellor shall present the document to the Registrar.

- 6. CLOSING REMARKS BY THE VICE-CHANCELLOR**
- 7. VOTE OF THANKS**
- 8. DEPARTURE**

ACKNOWLEDGEMENTS

Today, like every other remarkable day in my life, I want to thank The Almighty God not only for keeping me alive but also for giving me the grace to navigate through this turbulent economic life to bring me before you to deliver my valedictory lecture.

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THE ACADEMIC AS AN ENTREPRENEUR: SUSTAINABLE ACADEMIC CAREER IN AN UNSTABLE ECONOMY.

INTRODUCTION

Mr. Vice Chancellor Sir, I thank you immensely for giving me this opportunity to stand before the university community and the public to give this valedictory lecture after my 40 years of service to the university and to the university teaching hospital. When I came into Port Harcourt as a young doctor, I did not envisage that I was going into academics, but I was determined to specialize in Obstetrics and Gynecology (O&G) because of my interest in taking deliveries and the subsequent joy that it gave to the families. To date, I must have taken the deliveries of over 10,000 babies.

I started my postgraduate medical career at the University of Port Harcourt Teaching Hospital (UPTH) as a resident doctor, became a specialist, then got employed and grew through the ranks in academics at the University of Port Harcourt till I became a professor.

In the course of these developments, I met with several challenges and found ways of solving them to sustain my career as a medical doctor and later as an academic.

The first challenge I had was accommodation. As young resident doctors, the hospital did not provide us with accommodation and like many other civil servants, we could not rent a 2-bedroom flat in Port Harcourt City because of the high cost. I had to engage in a part time evening job in a hospital in order to pay the rent for a flat. When I was searching for a part time job, I had the opportunity to move around most of the major private hospitals at the time in 1984/1985. I often compared their infrastructure and practice

to what I saw in Lagos and in the United Kingdom and wondered why medical practice in a cosmopolitan city like Port Harcourt could not match those in Lagos or even the United Kingdom. Little did I know that I was developing an entrepreneurial mindset. At the completion of my residency programme, I was immediately employed as a lecturer 1, an academic position that requires teaching and research for academic growth in addition to the clinical practice of O&G.

I later wrote a proposal on setting up a small good quality medical clinic equipped with an ultrasound scan (USS) machine which was a service that was not available to the public in Port Harcourt at that time. The proposal was used to source for funds which I got to implement the project. Luckily, all the objectives I set were met, the USS service attracted a large clientele, providing innovative and quality medical services to the community, and of course, some financial gains with which I have sustained my academic career till date – attending conferences, research sponsorship, further training, update courses and mentorship. I have also supported my younger colleagues in their training where necessary.

THE ACADEMIC AND ENTREPRENEUR

Who is an academic? The Webster Dictionary definition of an academic is a member of an institution of learning.¹ A person who teaches or indulges in research in institutions of higher learning such as college or university. To be an academic you must:

- Be very intelligent
- Be a fast learner
- Be focused – No shortcut
- Be able to collaborate effectively (work with people)
- Be determined to succeed
- Have high ability for critical thinking

Who is An Entrepreneur? The term "Entrepreneur" originates from the 13th-century French word "Entreprendre," which means "to do" or "undertake something." It was in the 16th century that the word "entreprendre" evolved into "entrepreneur," signifying an individual who undertakes a business project. The Webster' dictionary definition of an entrepreneur is someone who runs a business at his own financial risk.¹ A kind of middleman. Another definition is a person who sets up a business, taking a financial risk in the hope of making profit. These are the 19th century definitions.

In the 20th century, innovators were added to these definitions and in the 21st century, modern perspectives of entrepreneurship include the establishment of the enterprise, management control, direction, bringing novelty introductions, improvement, making project change and getting a result. So, in modern day, an entrepreneur is not just a risk taker but a result-oriented person. He/she sees potential in the market. For them to see the potential in the market they must have the skills for critical thinking.

Vice Chancellor Sir, this is the same thing that the academic does when carrying out research. He/she sees the potential gap or problem in the subject matter or knowledge, chooses the topic for the subject matter using the skills of critical thinking. He/she then analyzes the available facts, evidence, observations and arguments on that matter (literature review) then forms a judgment or makes a decision. He/she then gathers data and produce a result. The interpreted result produces new knowledge. The knowledge now becomes his/her product.

The importance of "Knowledge" cannot be overestimated. This is because knowledge is a vital tool that enables us to

undertake any business project and create wealth. The wealth of modern economies highly depends on the level of investments in “Knowledge Capacity” and “Education”.² Unsurprisingly, a study found that the entrepreneurial ecosystem development in China helps promote municipal economic growth through knowledge creation and knowledge flow.³ Nobody is born an entrepreneur; you develop the skills from your experiences through life.

Undoubtedly, the strong positive relationships between Entrepreneurship Level, academic knowledge, and wealth creation have led to the rise in appreciating the contribution of academics in economic transformation in recent decades. Recent articles have also emphasized the important role of academics in driving economic growth through the transfer of knowledge, especially when they have an entrepreneurial mindset.^{4,5}

It is therefore imperative to provide some context on how the financial, micro and macroeconomic challenges in the Nigerian education sector have continued to determine the socioeconomic realities of academics who produce knowledge, most especially the sustainability of their careers as academics.

CHARACTERISTICS OF AN ENTREPRENEUR AND AN ACADEMIC

Characteristics of an entrepreneur

The characteristics of an entrepreneur are that they:

- Seek for opportunities.
- are passionate – passion for what they do, create new ones, carry out innovations and become a game changer.

- are business savvy – Do a lot of everything – purchasing, accounting, marketing
- are confident – Believe it must work.
- are planners – Do not plan to fail but do not fail to plan. Flexibility – have plan B always.
- focused – Always on point. Marketing, good communication, personality traits.
- are money managers – an important characteristic of an entrepreneur to plough back and get more.
- Never give up – Things may look bad, never give up, keep pursuing objectives.

Characteristics of academics

Academics have the following characteristics:

- Curiosity - Observation of the world around them, asking questions and seeking answers. They are open to new ideas that would lead to bigger pictures. At the same time, they pay attention to small details that will explain the new solution, idea or discoveries
- Passion - Have passion for what they do. They can be persistent and flexible, adapting to new challenges and overcoming them while focusing on their objectives.
- Collaborative spirit - They can work with others to do their research work such as Lab Scientists, statisticians, accountant, etc.
- Objectivity - They show no personal bias and apply sound judgment even when under pressure.
- Critical thinking - When they observe gaps or identify a problem from their curiosity, they can analyze and evaluate the validity and reliability of the available evidence before providing solutions.
- Attention to details - Pay attention to every detail in the research from your study design to the experiment, analysis of data, your discussion and recommendation.

- Discipline - This in all ramifications includes time management, financial management and ethics. Time should be made for personal tasks apart from your routine responsibilities.
- Communication skills - They can communicate their teachings and findings in research effectively and clearly through presentation in conferences, seminars, manuscript writing and grant seeking. Marketing your product which is knowledge.
- Focus and creativity - It is not just that academics have critical thinking, but they can think outside the box and thereby address issues that others miss.

An academic embodies the characteristics of an entrepreneur and even more. In fact, the characteristic of an entrepreneur is subsumed in those of the Academic. The academic has an intense yearning to bring new insight after delving deep into understanding of the problem from all diverse perspectives.

DECLINING SOCIO-ECONOMIC STATUS OF ACADEMICS IN NIGERIA

Growing up in Lagos in my early years, I used to admire the academics as honorable, revered and special people in ivory towers. The academic procession in gowns was so much more exciting. They lived big in the exclusive parts of the well-kept campus environment. They were very well paid, speaking to the economic context at that time.

Becoming an academic has always been a challenging task that requires a combination of skills and other attributes like time management, discipline, dedication and lots of hard work. As the years passed by, people with different personalities and backgrounds stepped into academics, eager to make a living from research and teaching only to find themselves faced with

anxiety, stress, and other mental health issues including self-doubt and low self-worth.

Today’s academics in Nigeria have become ‘victims of change’, balkanized by the military regime in the era of the Structural Adjustment Program (SAP)⁶. It is from then that the fortunes, dignity and class of the academics started to drop drastically. In 1966, a university lecturer earned £950 per annum while his peers in the civil service earned £720 per annum. This was also higher than the wages of a First Lieutenant in the army. By 1975, following the synchronization of the civil service (a product of the Udoji & Co Advisory Committee during the Yakubu Gowon regime), an army Brigadier who previously earned less than a professor in the university now earned more than a professor. This marked the beginning of the devaluation of academic labor in Nigeria⁶. Figure 1 shows a 1979 newspaper publication of salary of the political office holders including the President. This was the extent of transparency at that time.

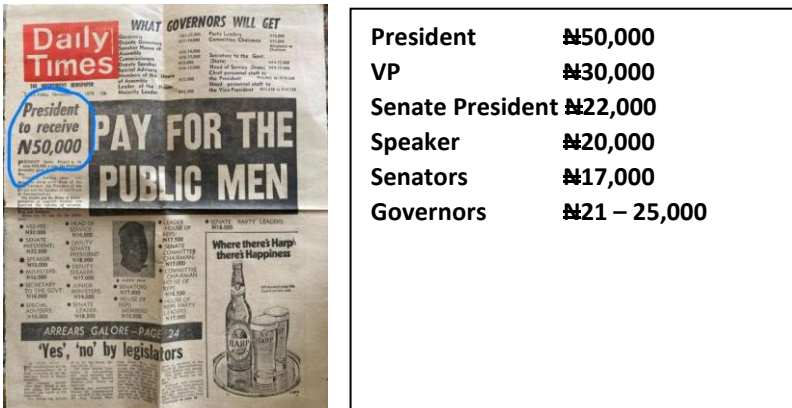


Fig 1. – A 1979 newspaper showing pay of government officials

To put this in further perspective, in 1982/83, my salary as a young doctor was ₦1,000 and a return ticket to London was ₦520, about half of that salary. So as a young doctor, I could sponsor myself to London for a conference (Exchange rate then was ₦1.2 to £1 and about 60 kobo to \$1. Today, the exchange rate is ₦2,000 to a pound and ₦1,500 to a US dollar. My salary as a professor is about ₦480,000 (£240) and a return flight to London is ₦1,800,000 (£900) on average. That is four times the monthly salary of a Professor. A return flight ticket to Lagos or Abuja is now about ₦240,000 (half of my monthly salary). I currently cannot even attend a conference or workshop in Lagos or Abuja as we speak! This is aside from my family responsibilities. Table 1 shows the current average salary of professors across some countries in the world. Our earning is one of the lowest in the world. It is not surprising that academics and other professionals are emigrating (The ‘Andrew must go’ era of the 80s and the ‘Japa’ era of today).

Table 1 - Average salary per month for Professors in different countries

| <u>Country</u> | <u>Dollar</u> | <u>Naira equivalent</u> |
|----------------|---------------|-------------------------|
| USA | 8,000 | 12,000,000 |
| UK | 7,200 | 10,800,000 |
| China | 4,105 | 6,157,500 |
| South Africa | 2,540 | 3,810,000 |
| India | 800 | 1,200,000 |
| Nigeria | 267 | 400,500 |

Note: The data on average salary pay was compiled from Glassdoor.com

In the past ten to twenty years, the economic challenges have intensified, especially in sub-Saharan Africa including Nigeria, leading to more frequent and severe economic hardship. As a result, many developing countries are facing significant public finance constraints, which have led to limited spending. This

has in turn sparked widespread industrial actions aimed at empowering employees to negotiate for better pay and working conditions.



Fig 2. – Striking members of the public during an ASUU strike (Photo by Pius UtomuEkpei/AFP via Getty Images downloaded from http://www.linkedin.com/pulse/nigerian-academics-job-passion-disappointment-tochukwu-emeka-irsebe?trk=public_post_main_feed-card_feed-article-content)

The Academic Staff Union of Universities (ASUU) has been in the forefront of the fight for improvement in the welfare of academics. Since 1979 there have been incessant strike actions demanding for better pay and improved facilities for teaching and research and the Federal Government repeated failure to keep to the agreements with ASUU. Arguably, if not for ASUU, the situation would have been worse. As shown in Table 2, the length of university strikes in Nigeria has increased significantly over the past 5 years. Previously we used to have strikes for as short as one or two weeks, but now we have strikes that span over six months, which seriously disrupts the learning calendar for students and affects the

mental health of lecturers. The calendar disruption is one of the major reasons parents send their children outside the country for studies.

Table 2: History of University strikes

| Year | Length of Strike |
|--------------|-------------------------|
| 1999 | 5 months |
| 2001 | 3 months |
| 2002 | 2 weeks |
| 2003 | 6 months |
| 2005 | 2 weeks |
| 2006 | 1 week |
| 2007 | 3 months |
| 2008 | 1 week |
| 2009 | 4 months |
| 2010 | 5 months |
| 2011 | 2 months |
| 2013 | 5 months 2 weeks |
| 2017 | 1 month |
| 2018 | 3 months |
| 2020 | 9 months |
| 2022 | 8 months |
| Total | 56 months |

Note: The data was compiled by author.

Apart from the increasing duration of strikes, another serious attendant observation is an increase in the number of suicides amongst lecturers. In the past five years, we have seen six strike related suicides compared to four recorded over a 20-year period between 1999 and 2018 (Figure 3). This can be attributed to the significant increase in the length of strikes. I postulate that with every one case of suicide, there must be hundreds of academics with serious financial distress during those strikes, especially with the coming of the unpopular government’s policy of ‘No work, no pay’.

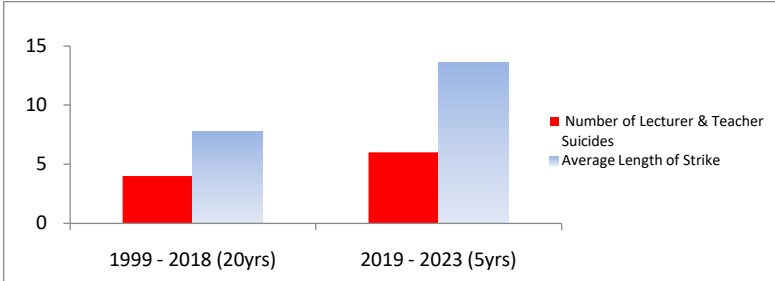


Fig 3 - Length of University strikes and Teacher Suicides

Academics in Nigeria have continued to be challenged by over-reliance on Government Funding and Poor Public Research & Development Funding. The Average Global Research & Development Expenditure as a percentage of Gross Domestic Product is 2.71%. In comparison, the USA spends 3.64%, China - 2.55%, South Africa - 0.62%, and Nigeria only 0.13%. Increasing domestic revenue is very crucial for sustainable development and to avoid continually relying on foreign aid to bridge the education financing gap in Sub-Saharan Africa.⁷

It is obvious that an academic that remains in the confines of the university wall in Nigeria, cannot sustain himself to achieve and maintain the characteristics of the academics earlier mentioned. We need to commercialize our generated knowledge, given the decline in quality of our lives in this country. The local environment within which the university is located needs to feel the impact of our academic knowledge, through the advancement of enterprises, businesses and industries around us.

Opportunities and challenges for academic entrepreneurship

There are several opportunities open to academics for entrepreneurship in their area of study. Those in the

professional fields can establish private practices, e.g. private medical practice, law practices, laboratories, pharmacies, schools, etc. Other general opportunities for all academics include:

- Writing and publishing
- Public speaking
- Administration
- Software development such as Artificial intelligence (AI), Tik Tok, content creation
- Innovations
- Politics
- Consultancy services
- Other businesses – real Estate, invest in the oil industry, banking etc. - invest in something. Prof. Emeritus David Cheriton of Stanford University made an early investment of \$100,000 into Google when it started. He became a billionaire shortly after.

Let us stop the narrow ‘tunnel vision’ thinking and let us go for the gap or the needs of our people or problems within our immediate community where we can apply our critical thinking, take the risk and go entrepreneurial. Some academics have made a fortune from endeavors like– digital records, podcast online content etc.

Hindrance to Academics being entrepreneurs

There are a number of obstacles that could bar academics from being entrepreneurial. These include the following:

- (1) Inability to recognize commercial opportunities and create values for the public
- (2) Lack of training in entrepreneurship or business management.
- (3) Lack of financial management training.

- (4) Lack of diversified language skills (limited global opportunities)
- (5) Complacency – most of us want to remain in our comfort zone while the world around us is changing, or inability to take risks.
- (6) University culture of: emphasizing only research and teaching to young lecturers and students up to PhD levels. Whereas, patents, startups and innovations may not count for promotion or employment but they matter when it comes to sustaining livelihood.
- (7) Lack of institutional support - financial or administrative.
- (8) Non-supporting environment – peer group jealousy, back biting, ‘pulling him/her down syndrome’ or ‘bad belle’ in local parlance.

Types of Entrepreneurs

The entrepreneur type depends on one’s personality, background exposure, motivation and industry type.

- Innovators – make a product or service better. Not necessarily invention in all instances
- Researchers - Have ideas, take time to gather all information, and carry out a research
- Hustlers - work hard, start small, hope to grow, willing to get hands dirty
- Imitators – Copy other people’s business and improve on it
- Buyers – Wealthy, have no time to waste and buy up thriving businesses

COMMERCIALIZATION OF ACADEMIC RESEARCH

I have never considered academics and entrepreneurship to be incompatible. In fact, they are complementary. It is possible to

be part of the publication race and still commercialize one's research findings.

Motivational drivers for commercialization

The paper, written by Alice Lam⁸ employed the three concept of gold (Financial) 'ribbon' (reputational/career rewards) and 'puzzle' (intrinsic satisfaction) to explore the intrinsic and extrinsic aspects of a scientist's motivation to pursue commercial activities.⁸



Fig 4. Motivational driver for commercialization

Traditionally, the goal of an academic carrying out research is to be the first to discover something that would be communicated to the outside world through publication. The reward is recognition by the academic community leading to peer recognition, publication, citation, prizes and promotion leading to an increase in salary and more access to research grants. These are extrinsic rewards that drive further research – the ribbon.

Apart from this, academics are also motivated by the intrinsic satisfaction of being able to solve the puzzles, creative activity being its own reward.⁹ In more recent times with the development of entrepreneurship, growing number of academics are now cashing in, using the 'ribbon' to trade for

the ‘gold’.¹⁰ These hybrid academics are now in the majority, even in advanced countries where academics has not been balkanized.

How to Commercialize your Research

Let me now run through four steps that academics can take to commercialize their research work.

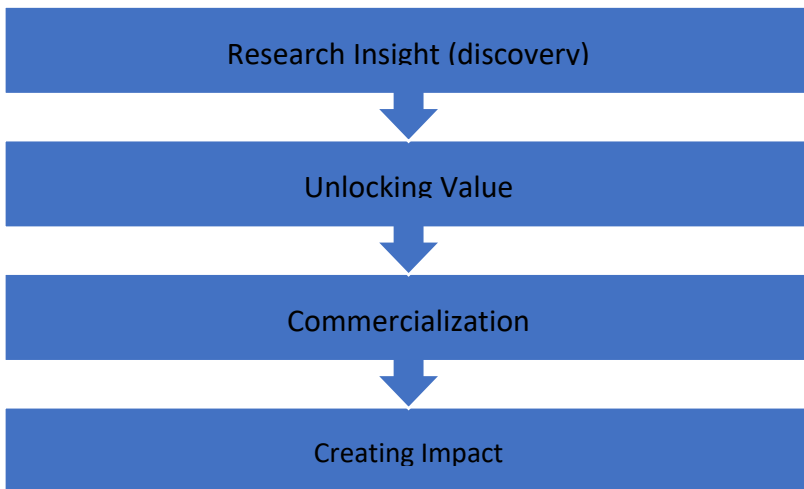


Fig 5 – Steps to Research Commercialization

1. Research Insight

Every research work starts with a motivation. A need to fill a gap or solve a problem. This is the bedrock of the process. You need to find that inner motivation, the unique problem you wish to solve

2. Unlocking Value

When research discoveries are driven by scientific inquiry and are not connected to any business purpose, the commercial value of the resulting discoveries will be unforeseeable. It takes conscious effort to see the commercial value of your

work. It is important to envision the potential commercial application of the solution that you would find to a problem that you care about. Let me make the point here that it may not just be for monetary gain but also for the socio-economic impact of having the solution available to everyone.

3. Commercialization

This step goes beyond envisioning the potential value of the idea or undertaking but deals with how to actualize it. The social environmental factors relative to individual-level factors have a greater impact on entrepreneurial ability of academics.¹¹ Thus, academics must also develop the social skills and competences to effectively relate with their social environment. Therefore, social factors such as collaborations with industry participants, potential investors and financiers are key. You must build a team and raise funds to execute the commercialization of your work. This requires skills outside the core skills required for your specific research or regular academic work. Thankfully, it is the same soft skills you employ when collaborating with fellow researchers on academic papers and networking at conferences and seminars. Those same skills are required to bring together a team and find funding to start a venture. In other words, you must network outside the academic community. There you may find angel investors, industries and companies to partner with.

4. Creating Impact

The end goal of every entrepreneurial endeavor is to create positive impact(s), either for personal or public gains. The commercialization of your work is not just for personal financial gain but for the benefit of the wider society by commercially providing your solution to the wider society and helping them solve the problem which was the motivation for your drive to find a solution.

Case Studies: Bose Corporation & BioNTech

I wish to illustrate two classic examples of a marriage of academics and entrepreneurship that yielded huge commercial success that were not only personal but universal.

Bose Corporation

In 1956 an MIT electrical engineering professor purchased a high-end stereo system and found that although the speakers of the stereo had spectacular technical specifications, they failed to reproduce the realism of live performance. This motivated him to research extensively into stereo speaker technology with a focus on solving the inefficiencies and weaknesses of speakers at the time. His goal was to develop a speaker that could be used in a domestic setting and mimic the same sound effects of a live performance. He effectively brought the sound feeling of a concert hall into people's homes. His research produced patents in loudspeaker design and in non-linear, two-state modulated Class-D power processing. His name is Amar Bose.



Fig 6. – A Bose Store in Shanghai International airport

(Photo by NeonNights via Getty Images downloaded from https://bose.fandom.com/wiki/Bose_Stores)

His research formed the bedrock of the company he founded, Bose corporation, which today employs over 7,000 people globally and earns over \$3bn in revenue. In 1964 he obtained seed funding from angel investors and launched his company. Bose produces high quality speakers for a variety of uses. The company has made Amar Bose one of the richest men in the world with an estimated net worth of over \$1.5bn.¹² Not only has his company benefited society by employing over 7,000 workers worldwide, it has also been of great benefit to MIT as Amar Bose donated shares of his company to MIT.¹³ Providing the university with a steady annual income to fund its academic activities.

BioNTech

In 2020, the world was brought to its knees with the spread of the deadly COVID 19 outbreak. In the wake of the pandemic, there was a global scramble to find a cure and bring life back to normal. A small company from Germany eventually emerged as one of the leading producers of the critical vaccine needed to get the world going again. That company is BioNTech, founded by a university professor working at the University Medical Center Mainz. His name is Ugur Sahin. Sahin's research life focused a lot on oncological research. He was instrumental in the setup of several research centers within the academic sphere in Germany, including the University Center for Tumor Diseases, Mainz (UCT Mainz) and the Helmholtz Institute, The Translational Oncology at the University Medical Center of Johannes Gutenberg University Mainz.¹⁴ His research into cancer and immunotherapy won him several awards and recognition.



Fig 7 – Pfizer-BioNTech Covid19 Vaccine

(Photo by Daniel Chetroni via Getty Images downloaded from <https://www.bioworld.com/articles/510698-pivotal-moment-as-fda-grants-full-approval-for-pfizers-covid-19-vaccine?v=preview>)

In 2008, he founded BioNTech with a fellow university lecturer and his wife. The company focused on developing and manufacturing active immunotherapies for the treatment of cancer and other severe diseases. They pioneered the use of mRNA for cancer therapy. In 2020, in the wake of a need to combat the deadly coronavirus, Sahin and his team shifted their focus to the use of mRNA in combating the virus. This led to the development of the BNT162b2 vaccine which had 95% efficacy.¹⁵ In late 2020, the company partnered with Pfizer to produce the vaccine which eventually became a key vaccine used in bringing the disease under control. Sahin was a strong advocate for the need for international collaboration to ensure equitable distribution of the vaccine across the globe.

One key theme across these two examples is the evolution of their success. It first begins with a motivation that spurs academic research. Research that benefits the academic community by contributing to the existing body of literature.

In the case of Bose, it was around psychoacoustics while for Sahin it was mRNA applications to cancer treatment. This was then followed by commercialization through the setting up of companies to carry out the commercial application of their research. These commercial ventures were not just driven by profit alone but also societal benefit. Bose has gone on to be a big employer of labor and a major financial contributor to the advancement of academic activities in MIT while BioNTech became one of the key contributors to help fight the deadly coronavirus that gripped the world. Both companies have made their founders wealthy in addition to providing positive socio-economic benefits to the society at large.

LOCAL APPLICATION OF ENTREPRENEURIAL MINDSET IN ACADEMIC AND MEDICAL PRACTICE

Let me come back home to our local environment where I have been an academic.

I was fortunate to have had several great academic mentors. Some of them were very conservative and others liberal to entrepreneurship. The belief that entrepreneurship distracts and limits your academic growth is no longer true.¹¹ Entrepreneurial activities potentially increase resource accessibility. With accessible resources, you can carry out more research in the areas of your interest or diversify into other areas with collaboration.

I was involved in multiple international multidisciplinary research activities in Ogoni communities and Port Harcourt early in my academic career. I also got involved in some minor entrepreneurial activities that supported and sustained my academic career till date. Let me mention a few that have impacted on my immediate academic environment, the University of Port Harcourt and the University of Port

Harcourt Teaching Hospital. It is important to note the difference between invention and innovation: Invention is creating something new while innovation is applying something that already exists in a different way or in a different environment.

1. Ultrasound Scan in an Ogoni Community.

When we were conducting research on the reproductive tract among adolescent girls in Kegbara-Dere, a rural Ogoni community between 1993 – 1996, various strategies were used to encourage the voluntary recruitment of the young girls and to win trust from the community. This included recruiting female adults/parents into the project alongside the girls. I brought my portable ultrasound scan used in my enterprise to the village to scan both pregnant and non-pregnant women for free. That encouraged the women and young girls as an incentive because they had not seen such technology. It is needless to say that we recorded a very big success in the research activities including quality publications that attracted many more foreign grants.^{16,17,18} Regrettably, we did not commercialize any of our findings or processes.

2. Ultrasound scan into Obstetrics and Gynaecology unit of UPTH

When I was appointed Acting Head and Head (HOD) of the Department of O&G both by the University of Port Harcourt and the UPTH respectively in 2006, I applied the entrepreneurial mindset in the running of the department that impacted on teaching, research and the immediate community. I got the first ultrasound scan into the O&G department for the teaching, training of resident doctors and for easy quality access to patient care. The knowledge gained by the resident doctors helped them in their dissertations and in passing their Fellowship part II final exams. Additional revenue was brought into the department.

3. Administrative innovations

At the time I took over as HOD, a good number of our resident doctors were failing their professional examinations and were being threatened to leave the programme by the hospital. I then introduced various innovative, administrative and clinical practice changes that addressed the challenges. One of the measures was the introduction of daily academic and clinical reviews of all patients admitted in the department first thing every morning 8-9am. Not only did this improve our patient care significantly, we also recorded an immediate rise of 70% pass rate by the resident doctors. Eventually 100% of those that have stagnated in the programme for a long time passed and this further gave way for the employment of new resident doctors. Although at the time, we did not envision an economic value to the intervention, it resulted in employment of some others.

4. Introduction of Hysteroscopy and therapeutic video laparoscopy at the Teaching Hospital.



Fig. 8 – First Video Laparoscopic Surgery in UPTH

Laparoscopy, also called ‘keyhole surgery’ is a surgical procedure that uses a thin telescopic tube with a camera at the end to examine or operate in the abdomen through that small hole thus saving the need to cut open the patient.

When I was employed as a resident doctor in 1984, we performed laparoscopy with a laproscator which Prof C.T. John introduced in 1983 but the instrument packed up by 1989. In 2009, that is 20 years later, operating without the benefit of such technology in a teaching hospital, it occurred to me to get my friend and colleague from South Africa, Dr. Femi Olarogun to visit and perform the first hysteroscopic and therapeutic video laparoscopy in the department and the teaching hospital (Fig 8). Most of the hand instruments used were brought from my private enterprise. Subsequently, the practice was supported by other academic micro entrepreneurs who brought in their instruments in both surgery and O&G departments. Many academic papers have been written on endoscopy by our lecturers in both surgery and O&G departments. Again, both academic and economic purposes were served from this entrepreneurial mindset.

5. Setting up of the Assisted Reproductive (ART) Unit in UPTH (2007 – 2017).

Dr Ibrahim Wada, a foremost fertility medicine specialist in Nigeria and I had set up the first ART unit in the entire South South Region in 2003, a private enterprise. We also had the first pregnancy, a set of triplets, in 2005.

Then in 2007, again as HOD, following my entrepreneurial mindset, I started the process of introducing ART practice into UPTH with Dr. Wada’s support. This would have been the first in the public sector in Nigeria but it took 10 years to realize because of various administrative challenges it.

Fortunately, I persevered and finally set it up in 2017 through public/private partnership (Fig. 9) and we got our first pregnancy in January 2019.



Fig. 9 - Assisted conception unit UPTH.

The unit is now well established with the strong support of the present Chief Medical Director, Prof. Henry Ugboma. Let me pause to appreciate also the former Chief Medical Directors Prof. Uriah Etawo and Prof. Aaron Ojule who made this possible. Several academic publications have emerged on this subject from the academics in this unit. I am happy to say that the unit now has four professors who are all academic micro entrepreneurs. Needless to say, that the unit has brought in some good revenue to the hospital.

6. Donation of Intracytoplasmic Sperm Injection (ICSI) machine to UPTH.



Microscopic machine used to inject one male spermatozoon into one female egg

Fig. 10 – First ICSI machine in UPTH

As earlier mentioned, we started the ART unit in UPTH in 2017 but we could not afford an ICSI machine which would enable us to carry out the full range of treatment in In-vitro Fertilization and Embryo Transfer (IVF-ET). I pleaded with Dr. Wada yet again to make a donation of the spare one we had in our joint enterprise. This machine (Fig. 10), worth \$28,000 then, was donated to the UPTH, ART unit. It was used for 6 years before replacement by the current CMD, Prof. Henry Ugbomah. Again, my gratitude goes to these distinguished colleagues who have supported the establishment and sustenance of this unit.

Vice Chancellor Sir, these entrepreneurial activities may have helped academia and the surrounding community but there are other hidden benefits like employment, professional satisfaction and mental health stability especially in the face of the present socio-economic instability. Many, if not all of us, are struggling to put food on the table for our families right now. Quality research outputs, inventions, patents and discoveries are likely to decrease as the economy gets worse.

There are many other academics in this university who have shown much more entrepreneurial mindset and activities. Let us encourage, pay more attention and recognize those academics who are making innovations and academic entrepreneurship in their various disciplines in this University. Pardon me that only a few come to mind such as Prof. Adewale Dosumu in Petroleum Engineering who has a couple of patents to his credit in oil well management and control, Dr. Faith Diorgu of the Nursing department who designed a birthing chair and Professor Martins Adesope from Faculty of Agriculture who recently cultivated some insects that can be used for animal feeds. These academic entrepreneurs make a direct impact on the lives of the community surrounding the University and the local industries. The University should pull these micro and macro entrepreneurs together to solve higher problems and create income opportunities for the University.

UNIVERSITY AND ENTREPRENEURSHIP

The main purpose or mission for establishing Universities is to teach, conduct research and provide community service. These three missions are interwoven (Fig. 11).

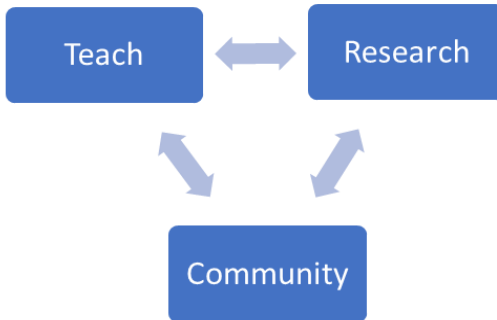


Fig. 11 - Mission of the University

For many years, the unity of teaching and research was thought to be what the universities are built on.¹⁹ The graduation of students with various degrees can be said to be the community benefits of teaching. In recent times, the benefit to the local community of the research that we carry out is also being demanded.^{20,21}

Universities in advanced economies have made deliberate efforts to foster and encourage knowledge transfer between the University and the community. Entrepreneurship has been a mechanism used for the spillover and capitalization of knowledge generated from the Universities. Knowledge Transfer Offices are being created and entrepreneurial university is now the trend worldwide.

Apart from responding to the community needs, the huge income generated from the commercialization of knowledge is now at the center stage of the university activities. For the university to achieve being entrepreneurial, there must be deliberate policies, culture and practices that must be put in place to achieve that desired entrepreneurial ecosystem. These include:

1. Moving more towards research- led rather than teaching- led university
2. Promoting entrepreneurial activities among students and academics
3. Promoting inter-relationship among individuals or groups who have entrepreneurial traits.
4. Looking beyond the traditional knowledge transfer mechanism like patent, licensing, invention and innovation but also look at the total entrepreneurial activities including high growth new ventures and startups.
5. Remove the fear that entrepreneurship will decrease research autonomy or output. Rather it is the high cost faced by academics in research that could stop them from going further into more research or commercialization
6. Provide institutional grant to support commercialization of research outputs
7. Pull individuals that can attract grants to work together
8. Networking activities should be created that would link academic entrepreneurs to the industries and government
9. Build infrastructure and habitat for the entrepreneurial ecosystem such as
 - Technology Transfer Officers (TTO)
 - Incubator (accelerations) hub
 - Science park center
 - Entrepreneurial center

The University of Port Harcourt, as an Entrepreneurial University

The University of Port Harcourt is an entrepreneurial University particularly since our 7th Vice Chancellor Prof. Joseph Ajienska so declared it in his tenure and appointed the first Deputy Vice Chancellor Research and Development (R&D) Prof. Emeritus Bene Willie-Abbey The vision was and still is to optimize the Research and Development potentials of

the university through the creation of an excellent environment for sustainable research and development efforts. Subsequent Vice-Chancellors have keyed into this vision, and I must commend our present Vice-Chancellor, Professor Owunari Georgewill for his efforts to actualize this vision in the University.



Fig. 12 – Innovation Park at the University of Port-Harcourt

The annual report of the Deputy Vice-Chancellor, R&D for 2022/2023 available in website <http://research.uniport.ed.ng/> highlighted some of the entrepreneurial activities of the University.²²Our present VC clearly stated his personal vision ‘for the prosperity of all staff and that of the university driven by innovation, technology, transfer and commercialization of research outcome’. The university has in the one-year period:

- Organized workshops on entrepreneurship

- Organized maiden Innovation week October on 23rd - 27th, 2023, themed ‘deepening the Foundation of innovation and Entrepreneurship’ – Organized with the partnership of - R&D office, African Centre of Excellence in oilfield chemical. African Centre of Excellence in Public Health Research and Toxicological Research. The intellectual property and Technology Transfer office and the Uniport Entrepreneurship Centre.
- Celebrated several researchers who distinguished themselves in the international arena for their contribution to knowledge and industries, including: Prof. Vincent Idemyor for his contribution to advanced pharmacy practice, Prof. Anthony Onoja and his team for ‘Creating Green Africa to build knowledge and skills of students, trainees’ and staff on climate change adaptation and mitigation in Africa. Prof. Peter Kpolovie for his several award winning books. Prof. Fyeface Ogan as the ‘distinguished innovator of the Year’ for his innovative approach in localization of the epidural space for the induction of anesthesia.
- And those who won TETFUND’s National Research Fund (NRF) grants.

The university in return has been well recognized by its improved ranking and commended by many organizations for promoting research, development and entrepreneurship.

- TETFUND has given us a grant to build a multidisciplinary research laboratory on a 3-4 hectares of land
- TETFUND has also offered to renovate any of our building and transform it into an innovation Hub. We have an innovation park (Fig. 12)
- Opolo Global Innovation Ltd has offered to establish an innovation hub to facilitate technology transfer to industry.

Much as I congratulate the VC for these achievements, there is still a lot to be done particularly in changing the mindset of our academics towards entrepreneurship and the building of an entrepreneurial ecosystem.

Conclusion

Knowledge plays a central role in the economic transformation of an individual and of the university. The socioeconomic status and class of the academics in an unstable economy like ours have decreased over the years. Academics need to tap into their inner desire to identify gaps and solve problems to ignite their entrepreneurial spirit that can drive innovation and positive change in the society around them. Entrepreneurship is no longer solely the prerogative of business. The commercialization of knowledge through entrepreneurship is now so urgent and acceptable to sustain individual academic careers, uplift the university and impact positively on the community. I urge all academics in this unstable economy to identify their potentials and capabilities in entrepreneurship in order to optimize their academic career, enjoy creativity and work fulfillment.

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CITATION



PROFESSOR JOHN I. IKIMALO

MB,BS (Benin) DRH (L,pool) FMAS, FWACS, FICS, FAMedS

Professor John Ikimalo was born in Lagos Island on 20th July, 1954 to late Mr. Vincent Damodu Ikimalo and Late Mrs. Regina Ikimalo of Iviuebepui village in Etsako East Local Govt area of Edo State.

He started his primary education in 1959 at St. Paul's Primary School, Ebute Metta, Lagos. His secondary school education started at St. Peter's College Abeokuta and later he moved to the prestigious Loyola, College Ibadan where he completed his secondary education in 1972 with distinction in West African School Certificate. This distinction won him the Etsako local government distinction cash award.

John Ikimalo then proceeded to Edo College Benin for his higher school certificate in 1973 where he was deputy Head of School. After one year, he was admitted to read medicine at

the University of Benin. He was again awarded the Federal Government Scholarship in Medicine for good performance by the Second year. He graduated with the MBBS degree in 1980 and stayed on to complete his housemanship at the University of Benin Teaching Hospital in 1981.

He moved to Port Harcourt for his National Youth Service Corps (NYSC) at the Military Hospital from 1981 to 1982. After his NYSC, he worked briefly at Seiyefa Clinic Port Harcourt, from where he passed his primary examination in Obstetrics and Gynecology. He started his residency training at the University of Port Harcourt Teaching Hospital (UPTH) in 1984 where he worked under notable academics in (O&G) like Professor Emeritus Kelsey Harrison, Late Professor Emeritus Nimi Briggs, Professor C.T. John and Late Chief (Dr.) C.I.T. Wokoma.

He passed the various steps in fellowship examinations in record time and obtained his fellowships in 1991. He was immediately employed as a consultant in UPTH and Lecturer 1 at the University of Port Harcourt.

Early in his academic career, he was involved in, and conducted several multidisciplinary international researches in reproductive health.

In 1995, he was awarded the British Council Scholarship and won the Gunter Charitable Trust award to study reproductive health at the Liverpool School of Tropical Medicine, and the Royal College of Obstetricians and Gynecologists.

Professor John Ikimalo rose through the ranks to be a professor of Obstetrics and Gynecology in 2010. He has held several academic and administrative positions in the university. He

was Head of Department of Obstetrics and Gynecology from 2006 to 2009, Dean, Faculty of Clinical Sciences from 2011 to 2013, Member, University of Port Harcourt Governing Council from 2013 to 2017, Member, University of Port Harcourt Teaching Hospital Board from 2018 to 2022. In all these positions, he made impactful innovative contributions to the manpower development and service delivery of the teaching hospital and the university. The introduction of the Assisted Conception Unit is one such development. He is the Chair Occupant, Nimi Briggs Chair in Obstetrics and Gynecology.

He has been a member and chairman of several committees and boards in the university including Chairman, Faculty of Clinical Sciences Development Committee, 2005 to 2010, Chairman Clinical Skill Acquisition Centre, 2014 to 2016, Member and Later Chairman, Board of Governors University of Port Harcourt Demonstration Secondary School 2011 to 2013 and 2014 to 2018 respectively. In recognition of his numerous contributions to the growth of the Secondary School, a house was named after him.

Professor John Ikimalo has been an external examiner in Obstetrics and Gynecology to various universities across Nigeria and the Gambia for many years. He is a post graduate and post fellowship examiner of the West African College of Surgeons. He has also served as external Professorial assessor in Obstetrics and Gynecology to several Nigerian premier universities. He is a Fellow of the West African College of Surgeons, a Fellow of the International College of Surgeons, Fellow of the Minimal Access Surgery, Member of the Association for Fertility and Reproductive Health in Nigeria and founding Fellow of the Academy of Medical Sciences in Nigeria.

Despite his professional and academic achievements, Professor John Ikimalo is a socio-philanthropist with an interest in community service. It is hard not to notice his numerous scholarships to indigent students, support of indigent patients and participation in medical outreaches across the country. He does these through the various socio-philanthropic clubs to which he belongs. For his various contributions to community development, he has been honored with the conferment of several Chieftaincy and high Chieftaincy titles both in Rivers and Edo State. A devout Christian and successful academic, he has also been honored severally by the Catholic and Anglican Communities.

Professor John Ikimalo is happily married to Dr. (Chief) Mrs. Francisca Ikimalo, a consultant paediatric nephrologist. Their marriage is blessed with 4 children and one grandchild.

Professor Owunari Abraham Georgewill
Vice Chancellor