

SUSTAINABLE DEVELOPMENT OF ENTREPRENEURIAL SKILLS: IMPERATIVE FOR AVIATION TRAINING AND DEVELOPMENT IN THE EMERGING NIGERIAN ECONOMY

Olaniyi, T. K.

Reader in Engineering

Afe Babalola University Ado-Ekiti

tkolaniyi@yahoo.co.uk

ABSTRACT

This paper describes the fundamental issues relating to Sustainable Development of Entrepreneurial Skills (SDES) as an imperative for aviation training and development in the emerging Nigerian economy. The air transport services in Nigeria have been growing in the last three decades but with the unfortunate ‘evolve and collapse’ syndromes that are synonymous to ‘Design to Failure Paradigm’. Nigeria has been endowed with investors that opt to run aviation in the manners they do with other businesses that has brought praises and otherwise to the nation. The success of the Public-Private-Initiative (PPI) in the ‘transformation agenda’ would depend on the inclusiveness of entrepreneurs. Regrettably, Nigerian aviation industry lacks individuals who organise and operate aviation ventures while assuming much of its associated risks and inherent dynamics. Given the current Nigerian aviation education focus on the issuance of ab-initio licenses; the role for entrepreneurship is often relegated. The industry hence urgently requires entities that would usher products and services faster, better and cheaper through research, innovation and creativity. It would imply a stronger safety culture, better usage of human resources, provision of flexible and usable technologies and epistemology of locally available resources across the value chains. Pilots and Aircraft Engineers (PAE) must develop ability to master business concepts from experience; modeling of constructs; inclusive of “learning by doing”. PAE would require a shift in mental paradigm from the traditional competence-based training to that of creative intuition, cutting-edge research and developmental initiatives in a sustainable manner. Despite the various forecasts of the intended contribution of entrepreneurship in economic development, the limitation in the number of potential employers in the Nigerian aviation sector makes the problem more glooming for young, uninformed, desperate and vulnerable applicants. If entrepreneurship is to take a prominent role in the Nigerian aviation sector, there would be a need for paradigm shift; else PAE must look elsewhere inclusive of foreign shores. Current and future emphases should focus on the usage of creative and experiential learning methodologies, internships, mentoring, business case studies and strategic plans. There exist a causal linkage between knowledge; innovation and commercialisation as prerequisites for technological advancement. Regrettably, the case of such in the Nigerian aviation is saddens and worrying but there are hopes!

Keywords: Sustainable Development, Entrepreneurial Skills, Aviation Training and Emerging Nigerian Economy

1. INTRODUCTION

The air transport services in Nigeria have been growing since mid 80’s and early 90’s with deregulation and emergence of domestic airlines. Expectedly, there has been a corresponding increase in Gross Domestic Products (GDP) (Olaniyi *et al*, 2014). The air transport industry generates and supports 6.7 million jobs in Africa and contributes **US\$67.8 billion** to GDP - *direct, indirect and induced impacts* (Air Transport Action Group, 2010). Given the forecasted contribution of air transport in Nigeria that is expected to grow by 5% annually in the next 20 years (Oxford Economics, 2012), the increasing demand has enabled airlines to contribute about **US\$0.4 billion** and **61,000** jobs to the emerging Nigerian economy. Sadly, Nigerian aviation industry has been plagued by ‘*evolve, operate and collapse*’ syndrome since the 1980’s despite the impressive global contributions of air transport to economic development. It has been reported (Orejim, 2011) that of the thirty (30) airlines operating in the 1990’s, there remain only seven (7) operating scheduled flights in 2010. Undoubtedly, inconsistent regulatory policies, deteriorating infrastructures with obsolete facilities, *negligence and managerial incompetence* has significantly contributed to airline failings. Olaniyi (2014) has fervently argued the need for sustainable aircraft maintenance hangar as an imperative for the Nigerian aviation industry and further postulated the need for the development of human capital as a precursor for increasing the marginal contribution of aviation to the economic development in the emerging Nigerian economy.

Recent aviation business models witnessed in Nigeria is synonymous to ‘**Design to Failure Paradigm (DFP) – Aviation Flying Off-course**’ (... *a discourse for future considerations*) or ‘*crabs in a bucket mentality*’; the result of enabling such a self-destructive model is evident! Further, it is no doubt that the role for entrepreneurs has been relegated in the Nigerian aviation sector in the past and recent times – *no wonder many of the recent aviation policy documents has no space for entrepreneurship inclusion while a member of Senior Management Team erroneously stated in a recent aviation workshop that entrepreneurial skills is too academic for Nigerian pilots and engineers and hence should be perpetually discarded*. It is however the position of this paper that if the current Public-Private-Initiative (PPI) is to materialise in an effort to actualise the ‘*transformation agenda*’, the role of entrepreneurs must be redefined and be integral parts of the various Nigerian aviation policy documents. Specifically, aviation personnel (pilots, engineers and the likes) will need to master not only the technical academic contents as prescribed by the Nigerian Civil Aviation Authority (NCAA) and the associated aircraft or equipment manufacturers; but must further embrace the rudiments of quality entrepreneurial education, scholarly research and the development of their life-long learning in a challenging, inherently complex and dynamic aviation environment.

Nigeria has been endowed with investors, business persons and the likes that opt to run aviation in the manner they do with oil-gas, banking, insurance, internet and associated industries that has brought praises and otherwise to the nation! Significant numbers of airlines in Nigeria under the disguise of free for all liberalisation and deregulations are often financed by individuals, entities or conglomerates and controlled (not managed!) by relatives, associates, course mates, and alma-mater byproducts with marginal aviation management experience. Regrettably, the industry has not showcase individuals who organises and operate aviation ventures while encompassing much of its associated risks, complexities and inherent dynamics. Given the stringent Nigerian aviation regulatory policies and its pedagogic (curriculum) focus on the issuance of ab-initio licenses; the role for entrepreneurs has been stagnated since the emergence of the industry. The industry hence urgently requires entities that would usher products and services *faster, better and cheaper* than the competitors. It would imply a stronger safety culture, better usage of human resources, provision of flexible, usable and locally available technological resources and epistemology (*the how's and not the what's*) of aviation value chains.

Nigeria would need to be properly positioned within aviation value chain: *operate, maintain, assembly, manufacture and design*. Although the ability to completely design and manufacture a commercial aircraft with 100+ carry capacities might not be feasible with the next decade (Olaniyi, 2014); however, development of entrepreneurship skills must be given a positive impetus at both regulatory and pedagogic settings if Nigeria is to play a significant role in the impressive global aviation industry forecast. The defunct Nigerian Airways Limited (NAL) that once had Thirty Two (32) aircraft was plagued with aviation viruses and later deteriorated, fell and buried. Its disciples in the form of pilots, engineers and flight attendants scattered in and outside Nigeria; many of whom are old and aged with no opportunity to transfer the well sought after skills endowed on them via the tax payers! It is the position of this paper that the endowed entrepreneurial skills would have partly rescued the aviation industry. Attempts to create indigenous airlines in Nigeria without entrepreneurial inputs have met with similar plagues to those encountered by NAL and the evolving results have been ‘flying off course’ – a typical self destructive ‘**DFP**’.

The traditional approach to manpower development within the aviation industry has not lend itself to welcoming entrepreneurs partly due to the strict industry regulation, exorbitant economic of scale/scope and the costly technology required in the industry. This paper examines the underpinning principles of entrepreneurship in its global context, its relevance to the aviation sector, current impediments to its successful inclusion in the Nigeria aviation industry and the message of hopes for the aviators and its global stakeholders that are interested, ambitious and positive of the Nigerian aviation industry. It sounds reawaking calls to the National Association of Aircraft Pilots and Engineers (NAAPE) in their unique responsibility to uphold the noble course of Pilots and Aircraft Engineers (PAE). It argues for a systemic (holistic) approach as the way forward for investors, airline planners and their advisers in effecting solutions to the challenges facing intended entrepreneurs in the Nigerian aviation sector.

2. UNDERPINNING PRINCIPLES OF ENTREPRENEURSHIP IN THE GLOBAL CONTEXT

Entrepreneurship is an essential element for economic development that manifests itself through identifying, assessing and exploiting business opportunities. Entrepreneurs create new businesses and/or renew existing ones by making them more proactive. Entrepreneurship activities drive the economy forward through innovation, competence, job creation which further improves the society wellbeing. Entrepreneurship affects all organisations regardless of age or size in both private and public sector irrespective of the business objectives. Entrepreneurship is of interest to academics, businessmen and governments globally. Entrepreneurship is a global phenomenon that sprang out of innovative and creativity thinking given the emergent challenges posed by global economic trends. Tan and Montgomery (2007) stated that as at 1985, there were **253** educational establishments around the world with entrepreneurial programmes but later grew to **369** in 1991 - *this might partly be responsible for the absence of entrepreneurship discipline in the Nigerian aviation curriculum and the associated policy documents*. Entrepreneurship education began in the United States of America (USA) and later spread to Europe and Asia; it has however spread to other parts of the world and the agenda of which has taken a differing global perspectives. International organisation such as the World Bank has been advocating the roles of Small and Medium-scale Enterprises (SMEs) as the fabric of global industrial development.

Globally, changes are occurring so fast in technological, industrial, political, educational settings etc. Opportunity creation, marketing, book-keeping and financial-management, feasibility determination etc are amongst the essential competences gained through participation in entrepreneurial skills development programmes. PAE need to appreciate that entrepreneurial competence arises from ability to master business concepts from experience; modeling of constructs; social persuasion and owns judgments; and “learning by doing”. It is therefore paramount to assert that PAE would require a shift in mental paradigm from the traditional competence-based skills and training to that of creative intuition and cutting-edge research and development initiatives. Skill is the performance quality that does not depend exclusively upon fundamental capacities but developed through learning (*training, practice and experience*) in producing *originality of concepts that are unique in its contribution to knowledge and literatures*.

An entrepreneur is seen as one who organises, manages and assumes the need of the enterprise and take control of the future by becoming self employed through the creation of unique business concept(s). Entrepreneur exploits an idea and creates an enterprise (small, medium or big!) not only for personal gain but for social, developmental and economic benefit. PAE should see entrepreneurship as managerial behavioral pattern that capture the advantages of emerging markets in the national economic system. Competence is the ability required of an individual in doing an assigned job. PAE can gradually improve their competence through the development of complex, intellectual, social, linguistic and physical skills obtained through experience and training without which the individual cannot give the best required. PAE must address their knowledge, attitude and skill taught in an integrated environment in order to achieve the intended performance and maximise profit while managing business ventures. Oguz and Aydin (2012) described a comprehensive approach for developing entrepreneurship aiming at individuals, firms and the society. It includes motivating individuals to become entrepreneurs and equipping them with the appropriate skills for successful transformation of their objectives; providing a supportive and healthy conditions for business start-up; and ensuring that successful entrepreneurs are given their worth and those that could not perform to expectation are not *blatantly labeled with the seal of failure* - traditionally, global aviation has enjoyed such inherent benefits in its safety programmes that focus on *avoidance of future occurrences (failures)* as opposed to apportioning *blames* that has been erroneously placarded in the Nigerian aviation settings under the disguise of *performance appraisal*.

In Nigeria, the relevance of entrepreneurial education became prominent when the Federal Government through the National Universities Commission (NUC) mandated all higher education establishments in Nigeria to offer entrepreneurial studies as a compulsory module for all students irrespective of their discipline effective 2007-8 academic session (Nwekeaku, 2013). Sadly, PAE training is outside the mandate of NUC and hence entrepreneurial education has historically eluded the radar coverage of aviation training in the emerging Nigerian economy. It is however the position of this paper that prompt development of entrepreneurship skills amongst PAE is partly a prerequisite to industrialisation of the Nigerian aviation sector. The National Bureau of Statistics (NBS) (2011) argued the need to embrace entrepreneurship education given the failure of the economy to generate increased employment opportunities and the alarming increase in the number of joblessness that poses a great threat to social stability of the Nigerian economy. The position taken in this paper in respect of the Nigerian aviation sector is not significantly different from that described by the NBS. The limitation in the number of potential employers in the Nigerian aviation sector makes the problem more glooming for young and uninformed, desperate and vulnerable applicants many of whom are subject of varying degree of humiliations, abuses, frustrations and false hopes in their earnest pursuit to contribute to the globally-noble aviation profession that are subject to varying interpretation in the Nigerian aviation settings. PAE should be provided with entrepreneurship education and training in order to enhance their ability to contribute positively to the national economic development. There is a strong causal relationship between education and training and the improvement in competence level. It also implies that competency would play an important role in shaping perceived career options of PAE in their endeavour to partake as entrepreneurs in Nigeria aviation sector.

3. IMPEDIMENTS TO SUCCESSFUL INCLUSION OF ENTREPRENEURSHIP IN THE NIGERIAN AVIATION SECTOR

Aviation industry employs over 28 million people and 40% of the world’s manufactured exports are carried by air transport. It is the essential mode of transportation for same-day delivery with 65-70% occupancy rates where the full operational and infrastructural costs are covered. Using airlines as a point of reference, airlines operate within a regulatory framework in fulfilling the demand of air travellers (*customers, consignors and consignees of air freight*). Its stakeholders include aircraft manufacturers, airport authorities, air traffic services, travel agents, tour operators and shipping agents as shown in Figure 1. Ironically, NAAPE members mainly focus on the airlines (major employer of PAE), however given the inherent complexities of setting up an airline including the huge economic of scale; it has become practically impossible for an average citizen to break into the noble profession of the rich and wealthy in the Nigeria aviation sector. Figure 1 therefore revealed that if entrepreneurship is to take a prominent role in the Nigerian aviation sector, there would be a need for a significant paradigm shift in policy and regulatory framework; else PAE must look further afield inclusive of *foreign shores and other lucrative destinations outside Nigeria!*

Aviation enjoyed tremendous growth compared to other modes of transport; Holloway (2008) stated that airlines carry well over two (2) billion passengers and between twenty five and thirty per cent (25 - 30%) by value of world trade annually and hence amongst the primary facilitators of the global economic growth. Robertson (1995) discusses the potential of airports in aiding regeneration of depressed areas rather than their more widely recognised economic impacts. The author stated that the scale of employment generated can make an airport the largest single employer in a region with the jobs concentrated within a fairly localised area around the airport. Airport growth provide opportunities for less skilled and unemployed workers and airports with good air services can help less buoyant areas to be short listed by potential inward investors. Airport development provides funding opportunities as well as support local tourism. Akandonda (2003) argued for healthy competition in the aviation industry so as to achieve superior quality at reasonable price for consumers benefit. The author stated that aviation plays a key role in tourism, carriage of perishable and high value commodities, access to places with difficult terrain, national defence, emergency reliefs, map services, agricultural and public health services amongst others.

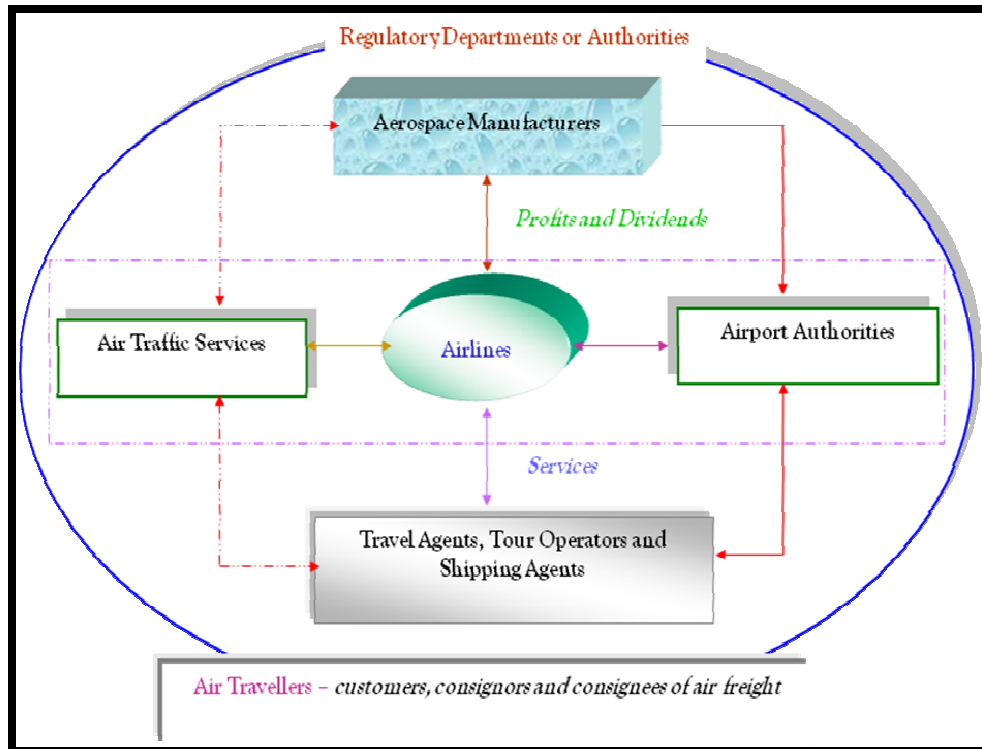


Figure 1: Stakeholders of Sustainable Aviation Development

Aviation is an irreplaceable mode of transportation with unprecedented role in global trade, industry and transportation; and without which the economic growth witnessed since the dawn of aviation would have been unforeseeable (Schipper, 2003). PAE must take advantage of this high growth global industry in their pursuit for entrepreneurial endeavour and economic development! It is no longer surprising that airlines are the worst performing of any of the individual sector within its value chain. The International Air Transport Association (IATA) established the Return On Invested Capital (ROIC) for different sector in the aviation value chain (Figure 2). *The figure reveals that the five per cent (5%) return on capital earned by the global airlines in the years 1996 and 2004 was below the cost of capital - estimated to be around seven point five per cent (7.5 %).* It is worth stating that amongst the sectors with the highest return on capital are Global Distribution and Aircraft Leasing; both of whom are dominated by small numbers of major suppliers. This is contrasting with the airline business where no group has market dominance except in restricted geographical areas. PAE should learn from this crucial revelation!

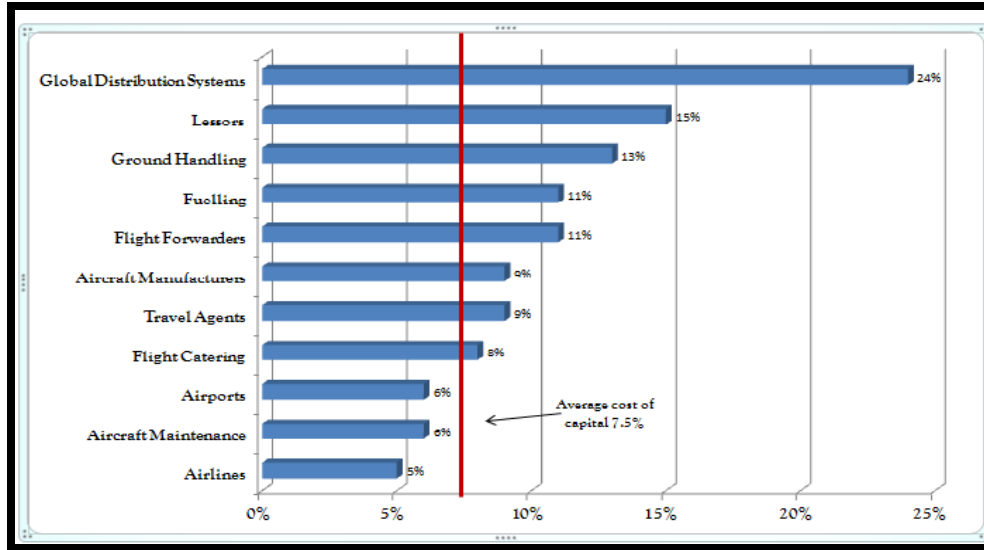


Figure 2 Average Rate of Return on Invested Capital in Aviation Supply Chain (1996-2004)
 Source: adapted from Doganis 2010

The current impediments to successful inclusion of entrepreneurship in the Nigerian aviation settings are numerous. PAE needs to improve their usage of information systems and information technology (IS/IT) as tools for conducting modern and future businesses. The usage of IS/IT should not end in the cockpit or as diagnostic tools for condition monitoring of airframe, powerplants and systems but be seen as an integral part of day-to-day activities for PAE in their social and professional practices. NCAA and other regulatory and accrediting bodies responsible for PAE should ensure active dedication of generating and disseminating entrepreneurship knowledge through strategic innovation, analytical decision-making and the adoption of IS/IT in an increasingly complex global economy. PAE should be provided with innovative learning environment that challenges traditional thinking that has failed to provide entrepreneurship platform for the industry. PAE ought to be given an opportunity for creative thinking and equipped to anticipate change in an inherently complex and dynamic aviation industry.

4. RELEVANCE AND BENEFITS OF ENTREPRENEURSHIP IN THE GLOBAL AVIATION SECTOR

Wealth creation and national dynamism depends upon the competitiveness of its firms which further relies on the capabilities of its entrepreneurs and managers. Table 1 below differentiate the characteristics and behaviour of an Aviation Entrepreneur, Capitalist (Investor) and Manager – it is hopeful that PAE would take a lesson from this analogy. PAE that wants to become a successful entrepreneur must learn to detect or create business opportunities through small and medium-sized firms and be willing to participate in the capital funding. Else, PAE could act as an arbitrator or simply “sell the business idea”. This role of an entrepreneur is not limited to optimising the efficiency of the firms’ asset; PAE must understand that in the current aviation business climate, it is paramount to anticipate, articulate and manage change by reinventing the firm on a regular basis while creating new spin-offs enterprise and developing local, national and global networks.

Table1 Aviation Entrepreneur, Capitalist (Investor) and Manager

	Capitalist	Manager	Entrepreneur
Generic Characteristics	<ul style="list-style-type: none"> Financiers Shareholders - controlling or passive 	<ul style="list-style-type: none"> Administrator Resource manager 	<ul style="list-style-type: none"> Discovers and take advantage of <i>opportunities</i> Create, initiates and motivates <i>change process</i>
Common Behaviours	<ul style="list-style-type: none"> <i>Aversion to risk taking</i> Assesses alternatives and take decisions accordingly Make <i>choice of venture assets</i> 	<ul style="list-style-type: none"> <i>Aversion to risk taking.</i> “Rational” decision maker Creates and maintains competitive advantage Creates trust to enhance cooperation and supervise the administrative process 	<ul style="list-style-type: none"> Accepts risks and uses <i>intuition</i> Alert and explores new business ideas A <i>leader</i> who initiates new ways of acting Identifies business opportunities and creates <i>new enterprise</i>

The essence of entrepreneurship for aviation professionals (i.e. PAE) is to pursue and disseminate creative business knowledge and understanding for the effective and ethical practice of the profession in its global context. Such business knowledge and understanding would help prepare, challenge, and inspire PAE in improving their future through innovation and creativity. Entrepreneurship training in aviation related disciplines would help integrate communication skills and meeting the career aspirations of PAE using creative and experiential learning methodologies, internships, mentoring, business case studies, strategic plans etc. The essence of entrepreneurship is to integrate decision-making; leadership; communication; effective management; technical and interpersonal skills as a precursor to professional practices. Entrepreneurship in the context of aviation should be a solution-driven phenomenon aimed at the early stage of aviation training so as to make the trainees responsible and enterprising individuals, who later become an entrepreneurs or entrepreneurial thinkers by immersing them in real life learning experiences, where they can take risks, manage results and learn from their decisions (good or bad!).

Paradoxically, aviation training for PAE strictly stipulates the need to adhere to procedural manuals and stipulated regulations many of which are cumbersome, impractical and legislated against by unscrupulous management wanting to maximise revenue at every cost! Specifically, entrepreneurship education would help aviator to improve academic, professional performance and attainment. Entrepreneurship training for PAE would help improve problem solving skills and informed decision making. It would help improve interpersonal relationships, team work, and financial management and communication skills. PAE must anticipate that entrepreneurial function implies the discovery, assessment and exploitation of opportunities in an inherently regulatory environment. Hence, PAE must seek new products, services or production processes that are not currently in existence - *unfortunately the Nigerian aviation sector do not easily lends itself to such transformation in its current policy settings; the implication of which might include PAE seeking opportunities in other less stringent regulatory industries.*

Entrepreneurship enables employment readiness; enhanced social and psychological development. Ironically, PAE training does not specifically require the need for informed decision, financial management and neither does it insist on employment readiness. This paper argues that PAE training through the voluminous prescriptions of NCAA should distinguish itself through innovation and creativity at all levels of its training and integrate research into its pedagogic documentations. The entrepreneurial opportunity is an unexpected (sometimes unvalued) economic opportunity that should be seen as opportunities for subsequent creation of new economic activity. Given the stringent regulatory policy of the aviation sector, there are restricted “opportunities” for exploitation by PAE; implying the need to develop capabilities to obtain resources, organise and strategically exploit opportunities. PAE must appreciate the importance of protecting ownership rights of ideas as further discussed in the next section of this paper!

5. The Message of Hope for Aviators, Well-wisher and Global Stakeholders

There is hope for PAE, well-wishers and the global stakeholders, however the road might be rough but the end could be promising! Figure 3 describes technology, research and innovation nexus as a platform for entrepreneurship development. It argues that knowledge, innovation and commercialisation are amongst the necessary prerequisites to technological advancement. It is paramount to appreciate the delay, non-linearity and inherently complex dynamics between action and reaction as represented by the two arrows crossing the various linkages. Regrettably, the case of such in the Nigerian aviation settings is saddening and worrying but there are hopes! It is worrying because of the absence “prominent and effective teaching and research platform”, a dedicated “centre of excellence”, and uneven “public-private partnership” in aviation related domain. In 2011, NUC called a stakeholders meeting to mount Bachelor of Engineering (B.Eng) degree in Aerospace (Aviation) Engineering amongst Nigerian universities; sadly not a single university has taken up the offer till date! Given the geographical closeness of Ahmadu Bello University (ABU), Zaria and the Nigerian College of Aviation Technology (NCAT) Zaria; both parties has muted the idea of joint collaboration to mount the B.Eng Aerospace Engineering programme as approved by NUC in the nearest future. However, the good intension of the parties could be hampered by bureaucratic and budgetary bottlenecks if not well managed in the spirit of entrepreneurship for the betterment of the Nigerian economy – **but there are hopes!**

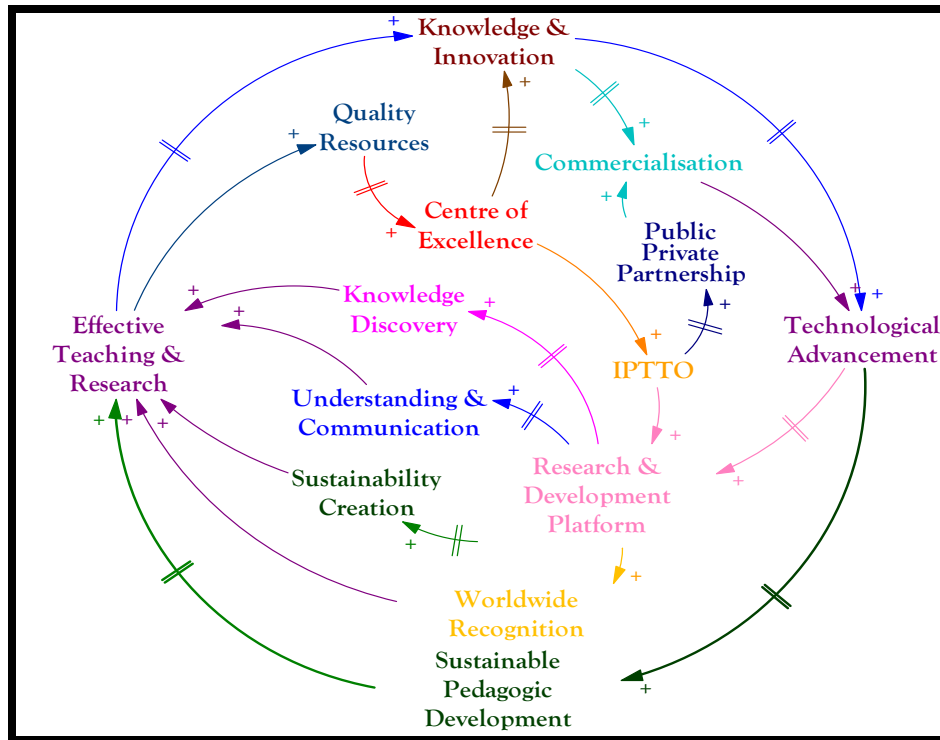


Figure 3: Technology, Research and Innovation Nexus – Entrepreneurial Platform

It is the position of this paper that a resounding ‘research and development platform’ requires a viable ‘Intellectual Property and Technology Transfer Office’ (IPTTO) in addition to access to advanced and modern technological equipped environment. If Nigerian aviation sector is to be known as ‘knowledge discovery’, ‘sustainability creation’ and be given ‘worldwide recognition’ platform, it would require an urgent development of its research and development platform propelled by various stakeholders inclusive of entrepreneurs. Technological advancement is required for sustainable pedagogic development if effective teaching is to emerge in the Nigerian aviation settings.

If PAE are to triumph in entrepreneurship business, they must be energetic and determined to sell new ideas in addition to being innovative, creative, imaginative, experimenting, seeing things differently, openness to change and new ideas, and possess an ability to ‘sell rather than tell’. Such attributes would be essential in finding opportunities to deal with existing and potential customers differently and add value to the aviation business environment. PAE must develop skills in strategic overview, concept formulation, customer sensitivity, interpersonal, communication and presentation skills. They must develop a unique personality that focus on the “determination to win”, “resilient and tough”, “flexible”, “listening and learning from what they hear” and “open to new ideas”. They must be enthusiastic and patient while embracing clarity of integrity, trustworthiness, honesty and a sense of humor. Consistency must be there watch words and be willing to stick to what they believe in both words and actions – there are hopes!

6. CONCLUDING SUMMARY AND RECOMMENDATIONS

The air transport services in Nigeria have been growing in the last three decades but with the unfortunate ‘*evolve and collapse*’ syndromes that are synonymous to ‘**Design to Failure Paradigm**’. Notably, if the current Public-Private- Initiative (PPI) as contained in the ‘*transformation agenda*’ is to be manifested, the role of entrepreneurs must be redefined, inclusive and be integral parts of the various Nigerian aviation policy documents. Regrettably, the current aviation documents in Nigeria notoriously relegated entrepreneurship to the ‘*back-bench*’ of aviation development while some Senior Management Team erroneously described entrepreneurship as overly academic for PAE. Entrepreneurship is crucial aspect of economic development that identifies, assesses and exploits business opportunities of which PAE should be stakeholders in respect of the Nigerian aviation sector. PAE must be prepared to act as opportunity creator and develop ability to master business concepts from experience; modeling of constructs; social persuasion inclusive of “*learning by doing*”. Hence, PAE would require a shift in mental paradigm from the traditional competence-based skills and training to that of creative intuition, cutting-edge research and developmental initiatives in a sustainable manner.

Despite the various forecasts of the intended contribution of entrepreneurship in economic development, the limitation in the number of potential employers in the Nigerian aviation sector makes the problem more glooming for young, uninformed, desperate and vulnerable applicants many of whom are subject of varying degree of employment frustrations and false hopes! PAE should be positioned for entrepreneurship education and training in order to enhance their ability to contribute positively to economic development in Nigeria. The inherent complexities of setting up an airline including the huge economic of scale has made it practically impossible for an average citizen to break into the noble aviation profession. If entrepreneurship is to take a prominent role, there would be a need for paradigm shift in policy and regulatory framework; else PAE must look elsewhere inclusive of foreign shores – *another case of double jeopardy of capital flight at the expense of Nigeria and Nigerian for the lack of sustainable aircraft maintenance hangar in the emerging Nigerian economy.*

Specifically, PAE must be a creative thinker, trained in modern settings and equipped to anticipate change. Entrepreneurship training should focus on using creative and experiential learning methodologies, internships, mentoring, business case studies and strategic plans. PAE must appreciate the importance of protecting ownership rights of their original ideas. There are hopes for PAE, well-wishers and the global stakeholders, however the road is rough but the end could be promising. There exist a linkage between knowledge; innovation and commercialisation as prerequisites for technological advancement. Regrettably, the case of such in the Nigerian aviation settings inherently saddening and worrying but there are hopes! The importance of annual professional development pertinent to the growth of the industry as opposed to monetary and socio-economic compensation (*i.e. foreign and out of station allowances, visa lottery, site seeing etc*) should be given an important consideration. PAE must be energetic and determined to sell new ideas; be innovative, creative, imaginative, experimenting, seeing things differently, open to change and new ideas, and develop ability to ‘*sell rather than tell*’ and be “determined to win”, “resilient and tough”, “flexible”, “listening and learning from what they hear” and “open to new ideas”. They must be enthusiastic, patient while embracing clarity of integrity, trustworthiness and honesty. There are hopes for PAE!

REFERENCES

1. Air Transport Action Group (2010) The Economic and Social Benefits of Air Transport 2010: Air Transport Drives Economic and Social Progress. Air Transport Action Group, Brussels.
2. Akandonda, A. (2003) Aviation in Transition: Challenges and opportunities of liberalisation, in: *Proceedings of international Civil Aviation Organisation Worldwide Air Transport.*
3. Doganis, R. (2010) *Flying off course: airline economics and marketing.* 4th ed. New York: Routledge, Taylor and Francis Group.
4. Holloway, S. (2008) *Straight and level: practical airline economics.* 3rd ed. Surrey: Ashgate Publishing Limited.
5. National Bureau of Statistics (2011) Annual social economic report, Abuja, Nigeria.
6. Nwekeaku, C. (2013) Entrepreneurship education and challenges to Nigerian universities, Nigeria.
7. Oguz, A. and Aydin (2012) Education system in knowledge society and model of innovative entrepreneur, *Procedia - Social and Behavioral Sciences* 47, pp. 619 – 623.
8. Olaniyi, T. K. (2014) Sustainable aircraft maintenance hangar – the imperative for the Nigerian aviation industry, in: *Proceedings of Association of Aircraft Pilots and Engineers (NAAPE).* Uyo, Akwa Ibom State, Nigeria, pp. 1-16.
9. Olaniyi, T. K. Uhuegho, K. O. and Anaedevha, M. (2014) Sustainable business model for airline operation in a developing economy: Nigerian case study, in: *Proceedings of the International Conference on Science, Technology, Education, Arts, Management & the Social Sciences.* Afe Babalola University Ado-Ekiti, Nigeria, pp. 167-174.
10. Orejimi T. (2011) Nigerian Aviation: which way forward? *Private and Public Investors guide*, No date. (online). Available from: <http://www.ppiguideonline.com/index.php/transportation-a-logistics/181-nigerian-aviation-which-way-forward> (Accessed 25 July, 2013).
11. Oxford Economics (2012) Economic Benefits from Air Transport in Nigeria. UK: Oxford.
12. Robertson, J. A. W. (1995) Airports and economic regeneration, *Journal of Air Transport Management*, 2 (2), pp. 81 – 88.
13. Schipper, Y. (2003) Environment costs in European aviation, *Transport Policy*, 11, pp. 141-154.
14. Tan, W. and Montgomery, D. (2007) Incorporating learning through doing in entrepreneurship education: the cases of a university – industry alliance in Asia.