



Managing Higher Education Pain Points for Knowledge and Innovation for Africa's Development: Lessons from the Rest of The World

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ABSTRACT

The main thrust of this research was to contribute to theory building in the Pain Points Theory (PPT) and their applicability in African Higher Education Institutions (referred to as AHEI right through), with focus on colleges and universities. The research explored gaps in knowledge regarding this theory as a contribution to knowledge, and in this instance the AHEI was the sample and epicentre of the research and was expected to meet foremost the needs of industry and government as employers of graduated students, then the needs of students and society in knowledge and innovation. This research was conceptual research using literature review only. A Pain Point or constraint is anything that prevents the system from achieving its goal like poor funding, high teaching loads, unattractive research prizes and incentives, low salaries that drive away talented academics and others and finally poor resourcing. The main reasons giving rise to this research were the facts that some colleges and universities in Africa faced challenges in graduate employability and suitability for industry and funding and needed accreditation by government agencies, and some had low innovation and research output. The main objective of this research was to contribute to theory building in the Theory of Higher Education and PPT and identify critical success factors for efficiency in service delivery excellence to students, industry and society in line with market orientation philosophy. The secondary objective was employability of graduates as the end product, maximising knowledge creation and innovation. Qualitative research method in the form of conceptual research was used in this research. The main findings were low salaries were driving away academics to NICs and overseas developed countries, lack of practicals/diverse teaching methods, lack of compulsory internship, unfair assessment, balancing classes with free time, the need for diversity in terms of faculty, uncommitted students, incompetent faculty, outdated syllabus, students from high schools not being college ready, graduates not matching industry requirements, poor internet service, low knowledge creation, lower levels of innovation and industrialisation in Africa, unattractive prizes for researchers and same for research incentives, lack of apprenticeship in some countries and no research funding.

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BACKGROUND

African HEI have done a lot to develop Africa, provide required strategic human resources and helps systems function for national development. However, many challenges were faced and these were of real concern and required long term solutions or interventions.

My research paper looks at African higher education as a driver for knowledge creation and innovation, sustainability and industrialisation, learning from best practices and experiences globally. This is theory building in the theory of higher education management (THEM) and the theory of pain points (PPT) and tries to find the place for Africa in its knowledge development and innovation. This theory proffers

that good well managed higher education institutions produced employable graduates who had strategic fit with the labour market and had highly innovative faculty who taught well and were highly productive in research, innovation and industrialisation as well as community service, the current Education 5.0. Pain points theory says any constraints were pain points which affected any system negatively, including higher education. There has always been ongoing debate, refinement and controversy about this huge behemoth industry called higher education with its multiplicity of stakeholders and contradictory interest groups. Some scholars said higher education was as controversial and toxic as national politics. It could be partly true given the realities on the ground. Out of that endless battle of the minds was where quality and development came from guided by the age-old higher education axiom of academic freedom of speech and expression and freedom of research. Best (2011:38) laid the case for education clear when he said that a child who was not educated risked a lifetime of permanent poverty. He said that lower education had serious consequences like lower income, poor health, shorter life expectancy, much greater risks of imprisonment, drug addiction, and mental illness and so on. His conclusion was that education was like a vaccination which helped to ward off potential problems and improved one’s chances for a happier, healthier life. But Africa faced many challenges in higher education just like the rest of the world, if not worse (**refer to Appendices 1-21**).

National economies and companies were as good as the universities servicing them. This research would be guided and informed by great works on American and global higher education history, research universities, standards, development, systems, dynamics, incentives, competition, funding crisis, graduation and degree completion rates and quality processes (Cole, 2009, 2016; Bok, 2013; Lombardi, 2013 and Bastedo, 2012:20-60) and other scholars who addressed issues to do with new innovative universities of the future and leadership for service excellence (Cole, 2009:10-80; Bok, 2013:100-130; Lombardi, 2013:40-60; Bastedo, 2012:60-70; Selingo, 2013:50-70; Christensen and Eyeing, 2011:90-130; Thorp and Goldstein, 2010:100-120; Crow and Dabars, 2015:150-160; Labaree, 2017:90-120), works which will be extensively quoted in this research, and the 3rd group explored lesson plan, challenges in higher educational leadership, declining power of academics, tenure track faculty, towards more temporary or adjunct faculty, high tuition fees, corruption, and too much speed in colleges, higher teaching loads, big class sizes and large student numbers, the corporate and corporatized university, students as customers in higher education institutions, profit targets and marketing and commercialisation of higher education and these inform this research as well – (Berg & Seeber, 2016:60-90; Selingo, 2013:50-80; Bowen & McPherson, 2016:70-100; and Antony, Cauce & Shalala, 2017:50-100). The last group of higher education scholars dissect contentious quality

dimensions, issues and dynamics in higher education, (Arum, Roksa & Cook, 2016:40-80; Mettler, 2014:30-60 and Suskie, 2015:60-120). This research borrows a lot from these pioneering and eminent higher education scholars.

GLOBAL HISTORICAL PERSPECTIVES

To emphasize the central importance of universities to the USA economy, Crow and Dabars, (2015:11) had argued that the scientific discovery and technological innovation that were the products of academic research were widely held to have been requisite to the trajectory of economic development that led the United States of America in the second half of the twentieth century to become the dominant world superpower. Stanford University and Silicon Valley were cited as collaborators in IT excellence and Harvard University and MIT were linked to the Route 128 Technology Corridor in Boston (it was the second largest technology corridor after Silicon Valley, with many technology firms headquartered there as well as many colleges and universities). The African infant near equivalent of these USA institutions was technology parks one would find in Nigeria, Egypt and South Africa, though quite small in complexity by comparison due to funding limitations and other factors. Africa was still in its infancy regarding those kinds of institutions which created lots of jobs and research output. Life beyond primary industries like agriculture would be rooted in new knowledge industries created by academia, IT, logistics, new start-ups and tourism. The logic of massification had affected all countries resulting in increased access to HEI, the importance of academic credentials for employment and social mobility, and in general the centrality of higher education in increasingly knowledge-based economies, argued Altbach, (2016:51). But one would ask that if all people got degrees who would do operative and menial jobs? Are we not seeing graduates unemployed and doing menial jobs? Where is the promise of good life after college/university? Is higher education living up to its promise of providing secure jobs, and a dignified rich life? It is a mixed bag as a large percentage of graduates still do get jobs and prosper, no doubt, but others languish at home with no jobs for long periods of time, hence the migration crisis to Europe, Asia and USA in search of the elusive jobs and good life (**refer to Appendices 1-21**).

Two of the USA’s pre-eminent academics proffered that students joined colleges for good and weird reasons some of which were a good life and good job/job security, a time of freedom, an opportunity to make friends for a life time, a chance to explore ideas, meet different kinds of people, see the world in new ways, a chance for party, drink, ingest assorted drugs and indulge in women and men. The authors argued that kids from poor backgrounds found it difficult to get places at colleges because of lack of required fees and subsistence money, poor SAT scores caused by unsupportive parents, divorces and broken families, brawling families,

poverty, poor accommodation/facilities, deprivation, lack of access to computers/internet and lack of books at home, attending poor rated schools, a poor achievement and education culture at home and social upheaval, drug peddling, getting too involved with girls and boys, poor degree completion chances/rates, among many evils, (Clawson and Page, 2011:13; 31-36). That was corroborated by many researchers in this paper too and elsewhere. If this was the case and reality then why were academics and HEI always held responsible for students’ failure and failure to complete degrees/diplomas when most causal factors were actually outside colleges and were found in families, communities and government policies? This is partly hypocritical and living in self-denial. Even remedial and mitigating measures adopted by HEI had their limitations too.

The USA’s elite universities’ secrets of success, which puzzle the world, were: -

- There was strict meritocracy in student and staff recruitment, reflection of national ethos and culture plus a rich mix of more than 3000 public and private HEI;
- Academic diversity in terms of funding from public and private, federal, state, municipal, corporate, entrepreneurial and philanthropic sources;
- There was a good balance between teaching and research;
- Academic departments and faculties or schools were discipline based and highly specialized to allow for focus and synergies and highly researched tenure track professors dominate the system rather than adjunct and temporary faculty;
- There was intense competition for faculty and academic talent which improves their earnings and conditions;
- University building is owed to academe’s pursuit of and receptivity to talented foreign students, some of whom get USA citizenship after completing their studies, especially PhDs and hard sciences and the USA has always welcomed persecuted top professors from the whole world since time immemorial, which has highly enriched USA universities;
- There is unquestionable academic freedom for faculty and students alike which one rarely finds in other countries, other than Western countries. Academics could research and publish on any topic without restraint or sanctions or fear (except restricted highly sensitive state security and military issues), a very rare situation globally.
- American research universities were especially strong because they were governed similarly and in concert with their strong faculties without any undue

pressure from political authority and economic power;

- American research universities had a long tradition of offering undergraduates a broad liberal education for the whole person, not just technical competence thus inculcating a passion for intellectual inquiry;
- USA universities have the most talented faculty as well as competing for the best diverse talented students from a large international pool, not just locals, and some of these get scholarships;
- USA universities are deeply committed to public service or national service and do engage industry, government and society in win-win collaborative arrangements and synergies in research, training, consultancy, SME development and many other areas;
- American universities had generally attractive locations, were well resourced and funded, had evocative architecture and inspirational beautiful campuses, with some outside congested cities, and most had world class residential facilities, and the USA’s huge geographical size covered all temperatures and seasons and exceptional variety for local and international students and faculty, (Axtell, 2016:364-372).

Those factors made the USA exceptional and could not be easily replicated by other countries. Its cities were clean, smart, high-tech and well maintained thus giving quality of life.

WHAT IS THE ROLE, PURPOSE AND VALUE OF A UNIVERSITY?

Carnoy and Levin (1990) pointed to the role of the college as access in social reproduction and the formation of elites, while Slaughter & Rhodes (2004) argued that colleges and universities served a key role in the state efforts to privileged economic development. In many liberal arts colleges and leading research universities, argued Bok (2017:50), investigations had shown that published research brought higher salaries, publications led to promotions, lucrative consulting opportunities and invitations to speak and attend conferences in exotic places as well as attractive job offers from other universities while good teaching offered none of these incentives. Did Oman HEI get enough research support? Field research would answer that question.

Christensen and Eyring (2011:125) took the issues further, quoting former Harvard University President, Conant, saying the foundation of quality higher education was important to ensure a steady supply of well-prepared students for Harvard and other universities.

That was making a pointer to governments the world over to ensure quality assurance from kindergarten right up to high school to guarantee quality students into colleges so as to

ensure progression at that last stage of the education value chain. He went further and argued that the general education of the great majority of each generation in high schools was vastly more important than that of the comparatively small minority who attended colleges. Students were the raw materials of higher education and if not good then output, graduation rate and quality of graduands could not be solved by anyone no matter what. How good were African schools and quality assurance measures, and where was the evidence of that? Any system was as good as its products as final product is tangible evidence of product quality.

In any country the elementary and high school education system is where most fault lines were identified which wreck the whole education system and cause havoc in the whole education value chain. Any deficiencies and errors at this crucial level caused dislocations later on which mostly could not be solved by any other party. Some children became useless for society and became welfare cases for government for life. Some became criminals and nightmares for society after failing to have a role to play in the highly sophisticated modern knowledge society, having been short changed and betrayed by the school system, if defective and imperfect. Excellent countries had excellent education systems at that early stage, like USA, UK, Norway, China, Lebanon, Germany and Sweden. Oman needed introspection and, identify any weaknesses there and correct them, as confirmed in attached appendices. The USA, Japan, China, Germany, France and UK are battling education reforms and improvements in schools and universities, even though they are the world’s largest economies. What more developing and 3rd world countries? That summarizes the role of colleges in modern society.

This research will look at how service delivery was affecting productivity and academic performance at African universities, and how improvements could be instituted based on world best practices. It would also unravel causes of lock jams and constraints and mitigation measures. The model of constraints has been tested by researchers and practitioners for replication in other countries but partly in Africa covering the unique African and developing country situation. Researcher wanted to contribute to theory building and knowledge in this area and fill this gap.

This research will demonstrate whether all African graduates were suitable for the market, the employers, and if some of them were not, the reasons thereof and possible solutions. Crow and Dabars (2015:1) quoted the US New and World Report saying the outrageously expensive cost of higher education in USA at institutions like Stanford and University of Chicago had now exceeded a quarter of a million dollars to complete the four-year degree. How many could afford those exorbitant fees given the level of wages/salaries for the ordinary American? It was quite clear that those institutions had become too elitist and exclusive. We were living at a moment of low financial support for higher education, even

as the need and demand for college were higher than ever before, (Davidson, 2017:10). Goldstein and Thorp (2010: ix-xi) gave well researched reasons for many issues bedeviling colleges as well as standards in colleges as follows: -

- The draconian cuts in faculty numbers and poor compensation that threaten universities;
- Drastic cuts in government funding;
- Concerns from society regarding the value of studying English and how it contributes to employability of graduates;
- It was now a grand vision of universities as crown jewels of society that the job was not complete when graduated students were beating the pavement in search of that all-important job (unemployment);
- Value of tenure for academics, preparing students more effectively for the job market, increasing the graduation rate among enrolled students and numbers of students overall; and
- Students, faculty, parents, trustees and state all expected much more from universities.

The researcher, from practical experience as a university teacher for nineteen years in both Zimbabwe and Oman, would add the brain drain/globalisation of labour market and cut throat competition for talent, excessive teaching loads and student numbers, frustration, overworking, stress, lack of adequate research funding, austerity, the making of major policy and operational decisions without the involvement of academics, job insecurity, bullying by management in some colleges, cost cutting and the crude profit motive. Those factors were weighing heavily on academics globally and some were ending up having high blood pressure, heart diseases, especially at lower tier colleges/universities. This was a worldwide problem where strict private sector standards applied and shareholders pressurised management for profits, market share, cost cutting and survival in a brutal ruthless market characterised by cut-throat competition. It was survival of the fittest. Research universities, like where the researcher works, were the paradise of academia where conditions of service were excellent as well as research and systems funding and administrative support. It was an oasis of good life and academic excellence where the highest standards were observed as well as publishing in SCOPUS indexed journals and patenting many new breakthrough inventions.

RESEARCH METHODOLOGY

A research design was the comprehensive plan for data collection in an empirical research project, and design’s quality was measured by checking internal validity, external validity, construct validity and statistical conclusion validity, where applicable, (Bhattacharjee, 2012:35-37). The research method used in this research was conceptual research. The paper is conceptual in nature and is based on the review of

existing literature on global and African higher education management for knowledge and innovation. Conceptual research is defined as a methodology wherein research is conducted by observing and analysing already present information on a given topic. Conceptual research does not involve conducting any practical experiments. It is related to abstract concepts and ideas. Philosophers have long used conceptual research to develop new theories or interpret existing theories in a different light. Research papers from various sources have been used as well as books, journals, government reports, conference papers, industry reports, professional association reports and those of research institutes. From these papers a conceptual framework of pain points or constraints in higher education service delivery has been developed.

The pain points theory was first developed in supply chain then cascaded to other disciplines, and describes the constraints or pain points that affected good service delivery in HEIs. In this model we have teaching, learning, assessment, research and innovation, industrialisation plus support functions in the HEI system like Registry, Finance, Admissions, Student Affairs, Marketing & PR. Government policies and accreditation agencies as well as society are part of the model for a complete service to the HEI system.

Watertight reliability and validity measures were employed as expected by academic convention in this kind of research. Thematic analysis has been used here to group related issues and do justice.

OBJECTIVES

The objectives were:

- a. Exploring historical perspectives of African and global higher education.
- b. Identify challenges faced in AHE and what causes them.
- c. Scientifically find out resource requirements for knowledge creation and innovation in AHE.
- d. Advance research driven solutions for a progressive AHE system.

RESEARCH QUESTIONS

These are:

- a. What are the historical perspectives of African and global higher education?
- b. What are the challenges faced in AHE and what causes them?
- c. Scientifically what are the resource requirements for knowledge creation and innovation in AHE?
- d. What would be appropriate research driven solutions for a progressive AHE system?

THE ISSUES IN HEI

Challenges in higher education

Research universities, which were recognised as the pinnacle of the academic system, faced many challenges which were threatening their effectiveness, missions, objectives, existence, viability and competitiveness, (Altbach, 2016:182-193), and these could be listed as poor or low funding, poor research funding and facilities, commercialisation and corporatisation of higher education, tension between autonomy and accountability, the globalisation of Science and Technology (shortages of laboratories and infrastructures), the emergency of private higher education which was not focused on research but teaching/learning and profits, the decline in public funding for universities, plagiarism, cheating in examinations, maintenance of the academic profession and a reduction in full time tenured staff, the thrust towards part-time and temporary academic staff, increased teaching loads, bigger class sizes, lower salaries and benefits and finally job security. It was quite clear that African HEIs were facing some of these challenges but what differed was the magnitude as well as why those factors were there, their causes and what could be done to mitigate them. Top of the list was a flight of senior academics to Newly Industrialised Countries (NICs) like the Gulf Cooperation Council (GCC) in the Middle East, China, and developed countries in Europa, USA, Asia like Hong Kong, Singapore, etc in search of a better life and rewards system. It is not just academics but the whole spectrum of professionals who are leaving either their countries or Africa for other countries/continents. Governments that we all looked to for solutions for some of these challenges had a myriad of challenges to look after besides education – the economy, pollution, crime, drugs, budgets, society, security, food security, international relations, commerce, retaining power, pleasing stakeholders (society, taxpayers, employers, constituencies, students, investors and many others). It was a very difficult balancing act and attracting their full attention was not easy (**refer to Appendices 1-21**).

Why academics migrate

Africa faces huge problems in losing senior academics and other professionals to the NICs and developed world. The reasons why PhD graduate academics migrated from Russia, China and India were complex, argued Altbach, and included better working conditions, infrastructure, salaries, academic atmosphere, academic freedom and other factors (2016:50). Those factors could easily be generalized to other countries as well as we see around us. Wars and civil unrest were other obvious factors driving academics beyond their borders, as well as quality of life issues. Academics were just like any other professional as they cared about their lives and would always want the best and avoid risky places. Bullying bosses was also a major factor as relations could get sour and

unbearable and people had no choice but to leave and go where they were accepted and appreciated.

Dynamics in modern HEI and unemployment for graduates

Bastedo (2012:5) discussed at length the issues colleges and higher education had to content with i.e.: - access, equity, social justice, governance, elite leaders, field dynamics, who would attend college, who stayed in college, how much should students learn, how much should college cost and how the equity and stratification could be improved. He said some of those issues had largely been ignored. The researcher would add quality of leadership, fitness for job market/employability of graduates, job opportunities, cost cutting/austerity, institutional branding/reputation, sophistication and competence of graduates as major issues nowadays. There was also a trend towards Academic Cities where all universities were built in one area as an academic industrial zone like in Dubai, UAE. The definition of a university was a corporation of students and teachers committed to knowledge production and dissemination in service of the needs of society, (Crow & Dabars, 2015:308). The researcher would add promotion of entrepreneurship, innovation and economic development as a key objective of universities too. Universities helped build national competitiveness and sophistication. Goldstein & Thorp (2010: ix-xi) contented that the grand vision of universities as crown jewels of society that the job was not complete when graduated students were beating the pavement in search of that all-important job (unemployment).

Academic institutions were naturally required by government to find solutions where they were suspected of being part of the problem. Industry said some of the graduates lacked the skills and competences required by employers. Goldstein and Holden (2010:151) quote two leading authorities on universities, starting with the philosopher Alfred North White who said that universities created the future, while Drew Gilpin Faust, president of Harvard University, said that universities created the future in two fundamental ways, which was by educating those to whom the future belonged, and by generating the ideas and discoveries that could transform the present and build a better world (innovation, research and industrialisation). This was undeniable. Crow and Dabars (2015:2) argued that universities were there to serve to enhance students’ human capital which is made up of knowledge, skills and capacities that will be rewarded in the labour market. They quoted Arum and Roksa warning that students experienced only limited learning from lack of academic rigour at USA campuses. The USA was the barometer of the world on most issues. One wonders whether the USA scenario is not the case in Africa. If it was difficult to manage and maintain academic standards and fitness for purpose for graduates in the USA, what more developing countries in Africa?

One academic who was working in a lower tier Chinese university said that every semester right at the beginning of the semester, the university vice chancellor would hold a meeting with all academic staff and give instructions that no student should ever be failed or else that lecturer would be fired. But the university president forgot that the final judge was the labour market or employers who would screen those graduates thoroughly through interviews and aptitude tests. Some graduates had been moving from one interview to another failing the strict interviews, especially in private companies where it was a no-nonsense scenario – either you knew or you didn’t know. That was when the students realised that there were shortfalls or deficiencies in their diplomas or degrees when they failed interviews. It was quite frustrating. If one passed the interview there was still the three months probationary period where one had to do the job and convince management of their competence before a substantive appointment. This was a second tough screening stage which could not be cheated at all. Failure at that stage resulted in dismissal or termination. That was again the time word spread across about the poor quality of the programmes, and that would then affect image, reputation, goodwill and enrolments in the long term and damage the institution financially, and may result in retrenchment of the very academics who were passing students who should not have been passed in the first place.

Most of those factors were not outside HEI but within the control of HEI but difficult to handle and solve permanently. Some of them could be solved given enough resources and commitment from HEI, government, industry and society. There were too many players and interest groups who have to cooperate to correct this situation. This was what Westerners called, *‘the enemy within,’* whether in African HEI or elsewhere in any country.

English had become the language of higher education global communication in the context of 21st-century globalization, (Altbach, 2016:8). Al-Nabhani, et al. argued that without internship a country produced paper tigers with distinctions but who could not do jobs practically and took time to learn the industrial culture and practices. Dr. Richard N. Rutter and Dr. Awadh Ali Al Mamari said, “Currently, Oman is still having to import vital technical and academic skills from abroad, rather than being able to develop its own base of domestic expertise. Another problem facing Oman higher education is the lack of Key Performance Indicators, or KPIs,” said the Borgen Project, 2014 quoting Dr Richard N. Rutter and Dr Awadh Ali Al Mamari **[Online]**. Where did African HEI stand on this? Sheffi argued that business, education and government had to work together as equal partners to find solutions to workforce development challenges and that it should be done now, (Sheffi, 2014:224). This message needed to be heeded in Africa where the problem of graduate suitability for industry was quite common as mentioned in government and industry reports.

Higher education educators were experiencing challenges and increasing pressure to ensure that graduates were employable. Some speculated that the lack of the right employment skills could contribute even more to the increase in unemployment, than does the global recession. Jordaan, Van Heerden and Jordaan (2014:1269-1282) asserted that there was a belief that a relationship existed between secondary education, tertiary education and industry, as role-players in providing the necessary skills-training for employment and that that relationship seemed to be linear, and when an imbalance in any of those environments occurred, it could potentially have an effect on the overall economic well-being of the specific country. This research laid bare the need for the three-tier value chain to be managed properly – that is schools, universities and industry; each had to play its part for a country to get the best skilled labour (primary and secondary education of high quality, good colleges and finally industry providing internship and graduate traineeship opportunities and financially supporting research and innovation as well as commercialization of research ideas). Was this the case in Africa? Why are our universities without large endowment funds as is the case in Europe/USA?

Student issues

Diversity of life experiences and opinions enriched the educational experience, while confronting differences can be uncomfortable, but can contribute significantly to learning and a future working life, (Antony, Cauce & Shalala, 2017:77). Higher education attainment was associated with better health, higher employment rates, and higher relative earnings, besides higher proficiency on skills such as literacy and numeracy, (Bowen and McPherson, 2016:12). The USA system of higher education did not arise from a plan and no agency governed it, it just happened and the USA made the top ten universities in rankings except Oxford and Cambridge, 146 of the top 500, 52 of the top 100, and 32 of the top 50, (Labaree, 2017: 2;5). College served as a turning point in the lives of almost everyone and was a time and place where people learnt how to better fit into the world and create a meaning for their lives, (Selingo, 2013:168). By any measure college graduates led healthier and longer lives, had better working conditions, had healthier children who performed better in school, had more of an interest in art and reading, spoke and wrote more clearly, had a greater acceptance of differences in people, and were more civically active and the same attributes passed down to future generations, (Selingo, 2013:169). The University of Phoenix was the largest in the USA, University of California Berkley was the USA and world’s best research university while Harvard was rated best in the world and University of Wisconsin was the best entrepreneurial university in the world, (Clawson & Page, 2011:8-13).

The learning college would reflect that student learning and the assessment of that learning was central to the mission of the college, its philosophy, its values, and the identity of the institution, (Antony, Cauce & Shalala, 2017:20), quoting Blaich and Wise, 2010; Cistone and Bashford, 2002; Dwyer, Millet and Payne, 2006. Assessment was a difficult scientific exercise which decided the fate of students, their future and their families and had too many interest groups like students, their parents/families, society, employers, government, and the college administration who are naturally concerned about pass rates and backlash from students as customers for future uptake. It was not as easy as talked about and was the most sensitive and controversial academic aspect at any university. Many faculty lose their jobs for being too rigid and strict.

Total quality management and stakeholder dynamics

The two biggest challenges facing Arabic higher education across the board were the poor quality of higher education programmes and graduates and the low and poor research output, (Abedalhakeem & Ahmed, 2012:148-150). They went further and said there was reduced funding for higher education and research, as well as high teaching loads and very poor graduate compliance with industry skills/knowledge/attitude requirements. It was admitted that there were a few exceptions to that. One quickly thinks about crown jewels in Oman, UAE, Qatar and Saudi Arabia, universities that are at the forefront of academic excellence and innovation.

In fields such as architecture, engineering, nursing or physiology, a student’s failure to master the discipline’s core elements and techniques could yield serious errors in performance with disastrous consequences: collapsed buildings, defective machines, injury, illness, or even death, therefore society must not mistake competence for narrowness, (Antony, Cauce & Shalala, 2017:7). The cheating student could be harmed by missing the skill or knowledge (Robinson and Moulton, 2005:88), may harm their own self-worth when they realize that they were not really qualified for the credential they cheated to gain. Antony, Cauce and Shalala (2017:35) warned that starting with improvement then accreditation was much better than vice-versa. The over-expansion of PhDs could not be supported anymore and there were not enough jobs, Cole (2009:483). Faculty felt that screening students and making some students fail was part of faculty responsibility to ensure the academic quality of their programmes and graduates, (Antony, Cauce & Shalala, 2017:68).

THEORETICAL AND CONCEPTUAL FRAMEWORKS

Trowler was for the idea that appropriate theoretical/conceptual frameworks should always be researched and tested for their validity. He went further and said as research proceeded the implied theoretical synthesis

would need to be flexible so as to accommodate emerging issues, (Trowler, 2015:44). The researcher was guided by this axiom.

Theoretical framework

In higher education workflow was the progression of students from first year right up to graduation. A constraint or pain point was anything that prevented the system from achieving its goal. Managing pain points maximised value to the HEI as well as its customers and other stakeholders and was a major survival and competitive factor. The thrust of this research was to identify critical success factors for service excellence in academic departments of colleges/universities (teaching, regulatory framework, students’ expectations/perceptions, student advisory services, staff, IT systems, Library, support departments, research, assessment, feedback, evaluation and fighting industry competition). This research must identify all constraints facing African colleges and universities and possible solutions. The focus of this research was mainly African colleges/universities learning from global HEI. It was part of this research to investigate and see how African HEI were affected by the Theory of Pain Points in knowledge development and innovation and the reasons thereof, and to test the relevance and shortcomings of this theory, if any and contribute to theory building. This theory had generally been tested in manufacturing, industry, mining, NGOs and government operations but not in academia (colleges and universities). Findings from this research would be quiet a breakthrough and would make an important contribution to management of colleges and higher education institutions.

Conceptual framework

The Theory of Pain Points (TPP) is an overall management philosophy that is geared to help organizations continually achieve their goals. Its measurements are given by throughput (rate of production), inventory flow, and operating expenses (effect on sales and competitiveness). A pain point is anything that prevented the system from achieving its goal like poor funding, quality of new students or freshmen into the system, high teaching loads, unattractive research prizes and incentives, low salaries that drive away talented academics and others and finally poor resourcing. Managing TPP maximised value to the HEI as well as its customers and other stakeholders and was a major survival and competitive factor. The thrust of this research was to identify critical

success factors for service excellence in knowledge development and innovation (teaching, regulatory framework, students’ expectations/perceptions, student advisory services, staff, IT systems, Library, support departments, research, assessment, feedback, evaluation, innovation, industrialisation and fighting industry competition). This research must identify all constraints facing HEI in Africa in and possible solutions.

The underlying theory in this research was the TPP which was centred on reducing constraints or pain points in for service excellence, viability and competitiveness. Investigations in this research would centre on how the multiple variables can be managed to contribute to success and service excellence in African HEI. Marketing theory under which services theory falls puts the customer at the centre of everything and said that the customer was king of any organisation. Customer satisfaction was seen as central to everything. That would be the thrust of this research, to see whether African higher education institutions were achieving customer satisfaction all the time, creating knowledge and maximising innovation and the constraints that they faced in achieving that, if any.

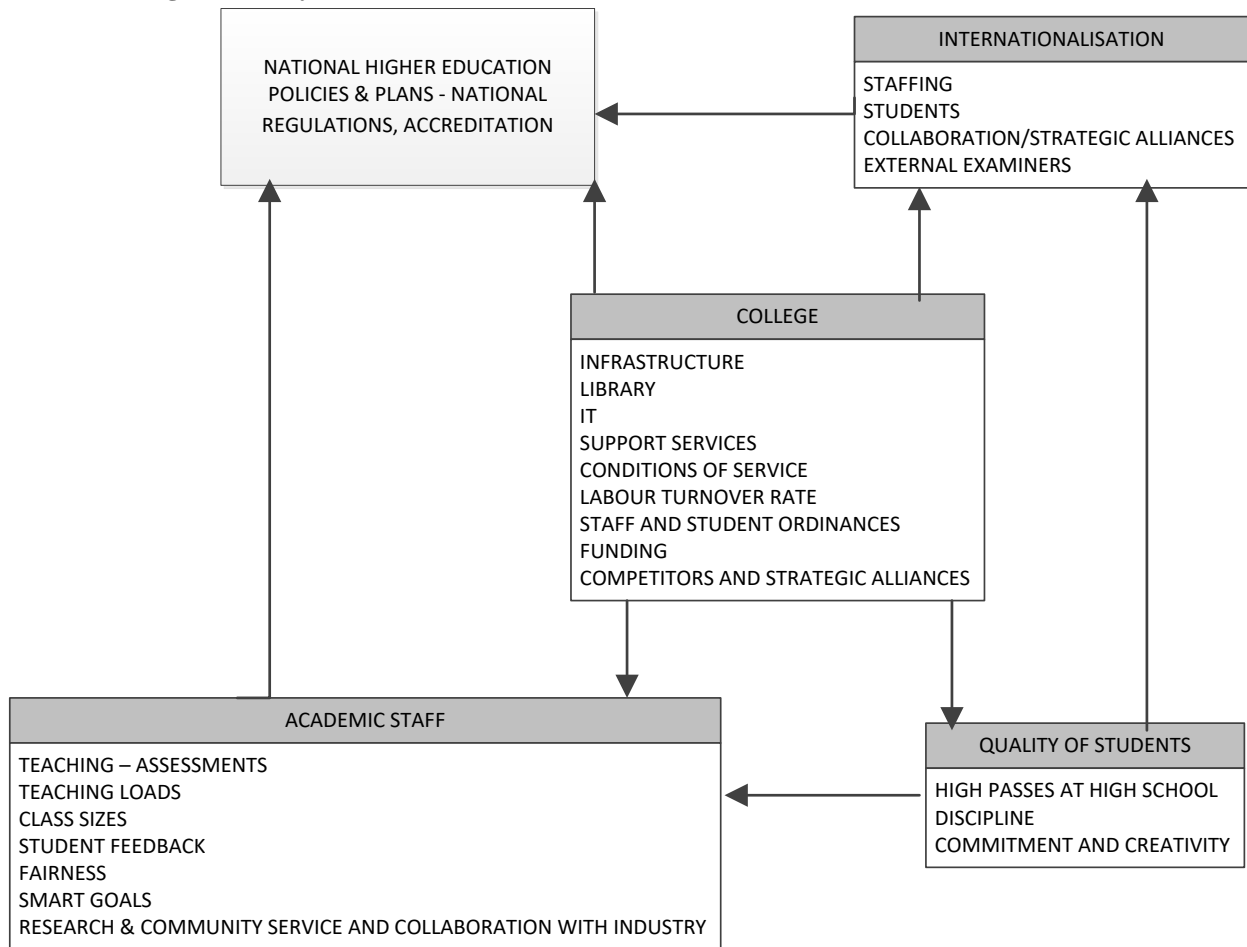
Model

A model is used to show and demonstrate the relationships amongst variables in a given system. In this research there are five main factors under study which influence the variables under study:- National Policies and Regulations, Internationalisation, Teaching/Research/Community Service, The HEI and Competition. This will be studied in relation to variables under investigation which are:- Teaching/Assessment, Student Feedback, College Support Services, Student Satisfaction, College Reputation, Graduate Employability, and Knowledge Creation/Innovation. The effect of these factors on the variables is the reason for this research. This research sought to identify pain points in service delivery at African HEI. Other less important variables were:- society, families of students, culture, language, competitors, corporate social responsibility and legal compliance. The other purpose of variables is to reflect the behaviour of elements where there are no theories or inadequate theories, to extend application of existing theories and finally to create links and relationships amongst variables.

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The final product in higher education was influenced by the dynamics of the following matrix :-

Figure 4.1: The college/university service excellence matrix



Source: Own research

The variables in these boxes must be managed well to guarantee good service to students and society, knowledge creation and innovation. The variables are this research are: - Teachers, Students, Facilities at College level, National Regulations and Policies and Internationalisation and Competition. McKeller argued for great care in managing services when he said that to the extent possible, all members of the supply chain benefited when non-value-adding activities were eliminated or minimized. He further argued that service providers could only excel if they had adequate resources like: - office equipment, supplies, software, utilities, vehicles and so on, (McKeller, 2014:10-11).

African higher education institutions have to identify all non-value adding activities and minimise or eliminate them. Bastedo quoting (Cyert & March, 1963:20-50), said colleges and universities were an arena of coalitional activity in which various parties exhibit differing preferences, interests, and goals and in which continual inter-group struggles over resources and power profoundly influenced ultimate decisions. That meant that decisions were highly complex involving many interest groups (students, parents, communities, industry, investors, trade unions, lobbyists,

NGOs, multilateral organisations like UNESCO, WTO, SADC/COMESA/AU and governments). The survival, growth and competitiveness of countries now depended on the quality of their education systems.

Researcher would argue that even with all these resources colleges may still fall short in-service delivery and good results. It was much more than resources but also staffing, lobby and advocacy, culture, family background and support, customer service, student assessment, student advisory services, student admission policies and screening, avoiding mark inflation in schools and colleges so that passes and grades reflect actual knowledge gained, student commitment and motivation and management of higher education and training on a continuous basis.

It also includes student admission and selection policies by government to avail the best students into colleges; quality = quality of raw materials (students) plus other factors= good results. Admitting hopeless students with very low passes mostly could not be solved at any other stage of the higher education value chain but became a problem for colleges, students, teachers, employers and society at large.

The lack of practical experience by business graduates was of great concern to employers and many were raising complaints about the credibility and quality of university business education, including academics themselves, (Bok, 2013:308). Compulsory internship could come in handy to plug this shortfall. Strategies aimed at attracting accomplished students can be costly for colleges: - i.e., building admissions offices, launching popular undergraduate majors, adding or augmenting graduate programmes, encouraging faculty research, emphasizing honours programmes and study abroad programmes. Campus enhancement could be done through infrastructure like student residences, dining halls, fitness centres and even shopping districts as well as pursuing prestige programmes Bastedo (2012:145). He said imitating market leaders and having information on prestigious benchmarked institutions presented pressure for conformity and catching up, Bastedo (2012:149-151). African institutions were always looking to USA and Europe for leadership and benchmarking. But cultural, economic, regional and national stage of development sometimes impedes benchmarking.

Europe and USA have ruthless student disciplinary rules regarding examination malpractice where summary dismissal was the norm. This was done to protect the sanctity and integrity of examinations. In Europe, Australia, New Zealand, leading Asian countries and USA proven plagiarism may lead to expulsion depending on severity or percentage plagiarism. Managing successful academic departments was no easy task at all as advanced by Glodstein and Thorp. They said traditional academic departments provided an intellectual and administrative home for faculty that was difficult to replicate elsewhere because of the painstaking hiring processes, the almost-ritualistic university traditions governing tenure, extensive professional meetings, seminars, conferences and publications which all served as certification and a continuing education process for academics. They concluded saying those departments needed to be compensated for all their contributions, (Goldstein & Thorp, 2010:72-73). One had to explore African colleges and universities and compare them with global best players and see whether salaries and other conditions were matching best practices to retain top level academics as well as new recruits. Appendices attached disprove that (*Appendices 1-7*). Academics were highly mobile and were global citizens like most professionals these days. Retaining them was only possible with best rewards, conditions and incentives. Low salaries and frustrations with funding for research and operations was an enemy within in AHEI.

RESEARCH UNIVERSITIES AND OTHER HEI DYNAMICS

Research universities must pay the highest salaries than other HEI, they must attract the best students locally and abroad, they must be respected and recognised, must have adequate

unquestionable funding, must have good laboratories and infrastructure for research, they must employ the best talent with PhD degrees from around the world, they needed first class ICT facilities and a global network, they needed academic freedom, must have low teaching loads, small classes, time for research, they must offer postgraduate studies up to PhD, they must have very high research output and publications in peer reviewed journals, they must have many disciplines/departments and are normally very big and complex, most are run by governments *and finally professors must enjoy middle class salaries and conditions of service in the given country*, (Altbach, 2016:180-182). Things like sabbatical leave, contact leave, staff and student exchanges, conference attendance, public lectures, consultancy, training and development, joining government think tanks and participating in national debates and discourse helped a lot in developing a research culture. Some African universities had now stopped all contact and sabbatical leave for their academics and senior administrators which was quite damaging for development and benchmarking. It means ideas were recycled without refreshing opposing new ideas from overseas and external institutions that people get on contact and sabbatical leave. This is unfinished business in AHEI. Bastedo (2012:281) quoting (Eisenhardt, 1989:2050) argued for the adoption of behaviour and outcomes-based contracts for academics as better for colleges and universities in terms of improving commitment and hard work. The disequilibrium between burgeoning enrolment demand and limited number of available seats at leading USA institutions was generally exacerbated by public disinvestment in higher education, Crow & Dabars (2015:304-305). They further pointed to the need for broader access to research grade institutions to a broad demographic range of students, socio-economically and intellectually, not just the elites and the rich.

Given the above challenge from these authors the questions that need to be answered were:

- a. What was the state of African HEI and how relevant was their syllabi?
- b. Did the African HEI have the diversity required to service the national economy?
- c. Who was the main provider of higher education in Africa, private or public institutions?
- d. What was the quality of African HEIs and suitability of graduates for industry?

Honest answers were required on all these questions.

Resourcing and innovation

Great universities were meant to be unsettling; they challenged orthodoxies and dogmas as well as social values and public policies; they were the most effective instruments for creating skepticism and discontent with established institutions and distinguished universities must entertain and not suppress the most radical thoughts, Cole (2009:380).

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Lombardi, J.V. (2013:192) described universities as highly political battle grounds where various interest groups negotiate, scheme, lobby, demonstrate and otherwise engage in the competition for preference, recognition, influence and compensation. Therefore, decisions were highly influenced by consensus and compromise amongst the interest groups. Christensen and Eyring (2011:341-342) spoke of the dilemma facing universities as well as causes of liquidation or death of some universities, if they did not have market strategic fit without exception, when they said institutions were rarely murdered nor did they commit suicide. They said institutions were not strangled by their natural environment while vigorous but died because they would have outlived their usefulness to society or failed to do what the world wanted done. Nothing could be further from the truth. It meant universities had to be run like any other businesses where marketing research guided business decisions, R & D and NPD were professionally done as well as competitor analysis and Business Plans/Strategic Plans. But even with those plans and practices, the African HEI faced economic shocks whenever commodity prices went down and that was one thing beyond individual institutions control. The price shocks always hit colleges hard as well, especially private ones. That now points to the need for economic diversification for stability.

Public universities were dogged by politics, public opinion, consensus, underfunding, red-tape, bureaucracy and layers of authority for approval process while private universities were mobile and quick in decision making; therefore, public universities needed to be creative in fund raising to fill the gaps created by lower public funding through tuition, donations and research, (Labaree, 2017:118-119). Giving reasonable independence for strategic planning and incentives (including financial) to schools and departments helped attract better leaders for those departments and schools, Cole (2009:489). Penalised failed experiments created a roadblock that discouraged action and organisations that are paralysed by inaction were at greater risk of being disrupted by innovations happening somewhere else, (Antony, Cauce and Shalala, 2017:51). Diversity of life experiences and opinions enriched the educational experience, while confronting differences could be uncomfortable, but could contribute significantly to learning and a future working life, (Antony, Cauce & Shalala, 2017:77).

The astonishing rise of USA higher education was mostly driven by the rise of USA to a position of economic, military and cultural dominance in the twentieth century, the devastating of Germany and Europe in the two World Wars, while America was investing heavily in university enrollments and research, and thirdly the emergency of English as the prime international language, which has given USA universities an enormous advantage in reaching a world audience with its publications and in recruiting faculty and

students from abroad, (Labaree, 2017:4). African HEI could learn a few lessons from this American experience as they struggle to perfect their systems.

Jordaan, Van Heerden and Jordaan (2014:1269-1282) said there was a belief that a relationship existed between primary/secondary education, tertiary education and industry, as role-players in providing the necessary skills-training for employment and that that relationship seemed to be linear, and when an imbalance in any of these environments occurred, it could potentially have an effect on the overall economic well-being of the specific country. How much cooperation and coordination was there in African HEIs, government and industry?

What distinguished American universities from the European ones was that they did not depend on government funding entirely, (with leading research universities getting less than 10% of their funds from government), and were much responsive to pressures from educational consumers, which helped shape their syllabus and product offering for industry compliance, (Labaree, 2017:5;7). Some African HEI were obviously facing huge problems regarding graduate compliance with industry requirements (**see appendices 1-21**).

Universities had to attract and retain students, position themselves in relation to competitors, adapt to changes in consumer demand and social conditions, lure contributors, and creatively pursue other forms of outside revenue; all these called for distinctive forms of governance, organization and curriculum, (Labaree, 2017:8). Professions were marked by three essential properties, each somewhat independent of the others: powerful knowledge, considerable autonomy and a very high level of fiduciary obligation and responsibility to individual clients and to the public welfare, Cole (2009:53). There may be betrayal of these canons in Africa as confirmed by industry and governments where some graduates produced in colleges were not suitable for industry. Corrections were required urgently for compliance. The university would produce the highly trained workforce that the increasingly technological and specialized society needed, as well as discoveries about nature and man that could yield practical benefits for American citizens and in return, society would offer the university a singularly important gift: autonomy from external political pressures and the right to police its own activities, and finally professors would decide university appointments and promotions not outsiders or politicians, Cole (2009:53). The superiority of American, British and Western universities had been driven by these canons, and China was now embracing the same norms with excellent results. Where are AHEI regarding political interference, worse during the election season when some cunning politicians use every dirty trick to win votes.

Buyers who were the students, wanted a college diploma that was better and better in providing access to good jobs; the four rules for success in higher education were:- it was better

to expand by creating new colleges than to increase enrollments at existing colleges, hire the best faculty, the strongest rewards went to those branded HEI at the top of the system and finally that it paid to imitate your betters (those better than you), (Labaree, 2017:9). Unemployment haunted many African graduates.

The central problem with universities was that the system was wholly at odds with itself and was riddled with contradictions, (Labaree, 2017:194). Undergraduates were populist, brought large numbers of undergraduates and supported the rest of the operation financially, and they connected with society to provide broad based political support and alumni funding, (Labaree, 2017:13-14). Land grant colleges (equivalent of polytechnics), provided industry based vocational skills area degrees that solved production, maintenance and solving day to day application based problems in society, like engineering and wood technology, (Labaree, 2017:115-16). America had been shifting to vocationalism, practical education and the professions for the past 150 years and away from theoretical dispositions, (Labaree, 2017:92). Freshman said that the number one reason to attend college was to get a better job according to a USA report of the College Board, the owner of SAT, but there were other benefits for society and the individual besides the pay check, (Selingo, 2013:123). Health and education had the lowest unemployment rate amongst graduates in USA, whilst business was the most popular degree, (Selingo, 2013:130;146). The same seemed to be the case in African HEI as well as globally. Why do most AHEI seem to have less STEM degrees when the world is moving towards more vocational education with readily available jobs? Is this not our elephant in the room (refer to Appendices 1-7)?

With the right policy in place, public educational systems were the best to extend educational opportunity and resources to the widest possible body of students and thereby have the greatest potential to improve quality of life for individuals and serve the public good, (Antony, Cauce & Shalala, 2017:131). Contemporary higher learning might become increasingly conversational and collaborative and focus less on the acquisition of knowledge than on judging its relevance and understanding if, why, and how it mattered and universities had to guarantee that their faculties had access to and are familiar and comfortable with the latest resources for effective teaching, (Antony, Cauce & Shalala (2017:10). Bowen and McPherson (2016:61-63) criticised unfair competition saying destructive competition for legislative support by institutions and the desire of private colleges to expand enrollments were major challenges in higher education. College was when students began to apprehend not only how knowledge can prepare them for a career so they could contribute meaningfully to society but also how knowledge could enrich and expand their human capacities for lives and work they had not yet contemplated, (Antony, Cauce & Shalala, 2017:10). They said regular undergraduate

teaching by presidents could give a unique and experiential picture of how learning mattered at their school. They said low enrollments could be demoralizing and poisonous to the extreme. Quite a number of African HEI retrenched academic staff because of poor enrollments after governments cut funding and grants as a result of austerity measures since 2008. The funding and grants were a lifeline for the AHEI naturally, and there was no quick substitute for this kind of funding. The HEI mergers currently sweeping the USA may be a strategic option for some African colleges. What is the value of independence when faced with collapse and extinction?

Universities must not just demonstrate that they were not only masters of creating innovative programmes, but actually capable of terminating some – which was something they have not done very well, Cole (2009:491).

SUMMARY OF LITERATURE REVIEW AND FINDINGS

Literature was the jury and laid bare the issues at hand. According to literature the challenges faced in higher education were poor or low funding, low salaries, flight of senior academics to NICs and developed countries, poor research funding and facilities, commercialisation and corporatisation of higher education, tension between autonomy and accountability, the globalisation of Science and Technology (shortages of laboratories and infrastructures), the emergency of private higher education which was not focused on research but teaching/learning and profits, the decline in public funding for universities, plagiarism, cheating in examinations, maintenance of the academic profession and a reduction in full time tenured staff, the thrust towards part-time and temporary academic staff, increased teaching loads, bigger class sizes, under-resourcing, lower salaries and benefits and finally job security. It said students join HEI for a good life and good job/job security, a time of freedom, an opportunity to make friends for a lifetime, a chance to explore ideas, meet different kinds of people, see the world in new ways, a chance for party and meeting beautiful girls, drink and ingest assorted drugs. It has been alluded that some parents simply wanted a place where students get occupied and spend the day while some students do not even know why they were at college, while some students hated being at college after being forced to be there by parents. A look at these reasons clearly shows that faculty may not be to blame for dropouts and failures. Students who have no commitment and who joined for other reasons rather than studying can be seen by their actions like absence from classes, not submitting assignments in time or at all, absence from examinations and tests, writing hopeless assignments where no effort has been exerted, etc. There are extensive student counseling offices and officers in HEI but still problem students were there and some drop out altogether. The majority did finish their degrees though. Fees

was obviously an issue and some students struggled to pay (refer to Appendices 1-21).

If one looks at the major academic problems faced by colleges in the whole world, one could clearly see that many of those problems were partly political. It had to be solved in the political arena where politicians changed policies, allocated budgets for required changes and construction and creation of new major national institutions or extension and improvement of same to support institutional level effort. Colleges and firms do not control these aspects and have no control on national education and trade policies which affected TPP in HEI, teaching and students/society. Traditional TPP theories did not cover that issue at all and were inadequate and too simplistic. What could HEI do to improve national college student admission selection/policies, fees thresholds, funding of public HEI, graduate employment job opportunities and business - nothing? It was all political. One was inclined to challenge the existing TPP theory of as inadequate and advocate the need for a new theory of TPP in HEI altogether which addresses these obvious gaps in literature and knowledge. An, ‘*All stakeholders theory of Pain Points*’, may need to be developed which said that once a problem emanates from the political system or elsewhere but can only be solved by the government then political stakeholders should be engaged by academic professionals/stakeholders through lobby and advocacy groups to solve any problem affecting service delivery in HEI, rather than remaining passive as academia and national systems groped with a myriad of challenges.

LIMITATIONS IN THIS RESEARCH

This research faced a number of limitations. One of those limitations was access to some documents considered sensitive which would be out of reach. However, researcher compensated most of those shortfalls through triangulation of sources. That helped to bring many issues to the fore. The research was quite objective. Time would always be an issue for a working academic during the teaching season. Having more time on the ground could have possibly led to the unearthing of even more issues. However, the researcher used comprehensive diverse sources covering all issues that normally affected HEI in any country as reflected by the rich literature review and analysed in this research. There was no doubt that coverage was comprehensive. The research remains relevant and coverage was good meeting academic standards of rigour, checks and balances.

RECOMMENDATIONS

The highly controversial debates reflected here point to the following recommendations across African HEI for knowledge creation and innovation:

- African HEI, government and industry needed to have regular national dialogue and discourse about all teething issues affecting students, employers and

government at HEI like forced specialisations/majors and many other issues raised in this research paper and find consensus solutions long term. This was a partly fractured system needing urgent attention. Some AHEI were a patient in the intensive care in hospital.

- Regular compulsory structured training in HEI pedagogics, innovation and research by top HE experts for all faculty and support staff was necessary as an ongoing exercise (workshops covering teaching, learning, assessment, research, community service, classroom management, assessment, research and innovation, knowledge management, role of IT, teaching styles, student advisory services, consultancy and fund raising). Poor teaching skills were raised as one of the major issues affecting students in many HEI. A study by the United Nations University under the Global University Network for Innovation (GUNI) in 2008 involving 48 universities (2008:315-318) across the world said of the Arabic Middle East region, that a survey on leading academics revealed that experts emphasized the training of teaching staff (78%) as priority number one;
- The introduction or revamping of Programme Advisory Boards which met every 3 months and with a minimum of six industrialists as members, who were experts in the given major/specialization for effective checks and balances and critique as well as updating syllabus, (Netherlands is a case in point).
- There was a real need for African Governments to establish more polytechnics and vocational training centres offering apprenticeship training and vocational education which produced much needed technicians for industry and the country in their thousands and could absorb those not suitable for other HEIs, but who were vocationally minded. It also reduced unemployment for the countries substantially and reduced pressure on governments. That category of employee was in short supply in some countries, or could be exportable skilled labour earning foreign exchange for the countries as well as livelihoods for families rather than unemployment. There was obvious overproduction in some white-collar degree programmes hence the unemployment, while blue collar skilled labour was in short supply. National planners should accept the market realities of too many HEIs in white collar professions while there was a shortage of technicians, tradesmen, technologists and applied professions like hospitality/tourism professionals and others. This was the case in many African

countries, mass production of white-collar degrees while technical areas suffered shortages like scientists, doctors, nurses, technicians and technologists (STEM personnel). STEM educated people easily started businesses using their technical skills while business/arts/humanities graduates mostly looked for jobs to be employed by someone or be unemployed.

- Upgrading of African syllabi to tie up with industry best practice standards;
- African HEI could get leading professors from the developed world to audit syllabi (degree structures every 5 years, and course outlines every 3 years), at all HEI as a quality assurance measure to ensure that it is upgraded and industry compliant, as well as meeting global best practices. Alternatively, a system of contact leave and sabbatical leave at advanced overseas HEI could help in upgrading syllabus when the faculty come back to base at their institutions. That is partly currently lacking and not there;
- Some African countries must do away with their current policy where highly experienced industrialists and technocrats were not allowed to teach. Only people who had a minimum of two years teaching in HEI could be employed as faculty, but where do they get teaching experience if not given a chance to teach surely? That regulation is robbing the countries of extremely useful talent of industrial managers and government bureaucrats who had a lot to offer students and had the practical side of issues which literature review highlighted. Other countries in Europe, Asia, USA, Africa and Australia and beyond always make use of these experienced managers as faculty. Training programmes could be arranged for them as short courses in pedagogics only and academic administration.
- Research prizes in Africa must be looked at and increased like in USA, Europe and Asia where academics and researchers easily become millionaires through their research. Why are most African professors poor and very few become millionaires? Why is poverty for academics glorified and never solved in most AHEI yet their skills/research make companies millions and billions in US\$? Food for thought for Africa.

FUTURE RESEARCH

African HEI had a done a lot in higher education which was acknowledged and respected by the whole world, but more still needed to be done for excellence. Issues differed across the continent where some HEI could have the same, or different or bigger issues even of a different dimension. Other researchers could do a countrywide and regional surveys and

interviews involving many countries, observations with larger numbers of students, faculty, administrators and government and have a wider and bigger sample. Many issues still needed answers like why those challenges persisted when they were known, how they could be solved, by whom, and when and what was required institutionally and nationally to address those issues. Was it possible to solve some of the challenges or not? Crow & Dabars (2015:13) contented that for any country to excel, leadership had to come from universities when they said they believed that the academic sector should assume leadership in managing USA accelerating impact on earth, and that universities were the most complex and heterogeneous knowledge enterprises that had ever evolved. The HEI system was never easy as there were too many diverse and contradicting interest groups. Longitudinal surveys and working with big samples across the whole continent could yield new insights and dig even deeper into those issues. Research in HEIs never ended in any country. The Theory of Pain Points was an ongoing debate in African HEI and pain points did affect HEIs in terms of inputs and outputs. System was very much uneven and partly working against preferred targets and ideals of government, HEIs, students, employers and society.

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APPENDICES

APPENDICES 1-9 CHALLENGES IN HIGHER EDUCATION

1. **7 Challenges Threatening the Future of Higher Education (2022):**
<https://www.bestcolleges.com/news/analysis/7-challenges-threatening-future-of-higher-education/>
2. **The Giant Challenge of Higher Education in Africa:**
<https://www.theelephant.info/features/2018/07/05/the-giant-challenge-of-higher-education-in-africa/>
3. **Experts weigh in on higher education challenges (in Africa):**
<https://www.universityworldnews.com/post.php?story=2019010712411454#:~:text=The%20main%20challenges%20facing%20African,of%20their%20respective%20development%20plans.>
4. **Challenges and prospects of Africa’s higher education:**
<https://www.globalpartnership.org/blog/challenges-and-prospects-africas-higher-education>
5. **Top Issues Facing Higher Education In 2014**
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APPENDICES 10-21 FAKE QUALIFICATIONS, CHEATING & PLAGIARISM

10. **Fake-qualifications-are-on-the-rise-how-universities-can-manage-the-risk:**
<https://theconversation.com/fake-qualifications-are-on-the-rise-how-universities-can-manage-the-risk-109962#:~:text=It%20undermines%20their%20leg>

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https://www.theguardian.com/education/2011/mar/03/ise-director-resigns-gaddafi-scandal
12. **57 Fake Doctors 'Treated' Patients for 4 Years in Maharashtra, Traced to Same College and Batch:** <https://www.news18.com/news/india/57-fake-doctors-treated-patients-for-4-years-in-maharashtra-traced-to-same-college-and-batch-2029841.html>
13. **8 doctors with fake certificates arrested (India):**
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