

Alignment of the Technical University of Mombasa's Strategy to the social pillar of Kenyan Vision 2030

Ahmed, A. H^{*}, Kingi, W^{*}, and Bachani, S^{**}

^{*} School of Business, Technical University of Mombasa

^{**} Department of Mechanical Engineering, Technical University of Mombasa

Abstract- TUM has undergone three distinct phases from a tertiary Technical, Industrial, Vocational Entrepreneurship and Training (TIVET) Institute to constituent college (i.e. Mombasa Polytechnic University College) and finally as a Technical University of Mombasa (TUM) aligned to the fulfillment of social pillar of Vision 2030. Specifically, TUM has been earmarked as Vision 2030 center of specialization in Tourism, Hospitality, and Marine based sciences and Technology. We examine the synchronization of TUM's current Strategic Plan 2014 - 2018 and Kenya Vision 2030 social pillar. We then look at implementation practices and barriers that can make TUM not realize its vision; and finally, we come-up with viable recommendations that will make TUM realize its vision as "a university of global excellence in advancing Knowledge, Science and Technology".

Index Terms- Strategic Plan, Kenya Vision 2030, TIVET and Strategy Implementation.

I. INTRODUCTION

University and vocational education is an important factor to the development of national economy. Castells (2001), Dill and Sporn (1995), and Newman (2001) unanimously agree that it is a mainstay in the development and support of economic, social and political development of a country. Gibbons (1994), Guruz (2003), and Scott (1995) have the view that the contribution of university education is premier and unparalleled to the advancements of scientific and technological innovations. Johnstone and Teferra (2004) affirms that these advancements have been the cornerstone for the development of specialized human resources but also universities represent the most meaningful symbol of intellectual, economic, cultural and social life of the community in general. In other words, establishing these institutions require huge investment and consequently have great expectations in propelling the economy. Therefore, "to live in the market" (Clark, 1995, 165) and to be "innovative" (van Vught, 2000, 350), the universities need to develop the internal structures to meet their new missions (Detomasi, 1995). Johnstone and Teferra, (2004, 1) concludes that these institutions "... are important symbols of national identity and repositories of the histories, languages, and cultures of the people(s)".

Kenya, by no means, is not an exception to this development notion. In fact, the Republic of Kenya (2007) created a development program referred to as the "Vision 2030" in order to realize economic growth, gain competitiveness and achieve improved quality of life for its citizens by the year 2030. To facilitate economic growth, the country has embarked on a substantial infrastructure investment program. The plans are nothing if not ambitious, involving port construction, airport expansion, a massive improvement and extension of the country's road network, the creation or upgrading of road and rail links from Kenya's ports to central Africa and to countries north of Kenya, a threefold increase in electric power generation capacity and a new oil pipeline to the coast. Thus, the program faces a number of challenges, ranging from the existence of over regulations, to meeting intellectual needs for development demands. The following is an excerpt of the Vision 2030:

A national long term development blueprint to create a globally, competitive and prosperous nation with high quality of life by 2030, that aims to transform Kenya into a newly industrialized, middle income country providing a quality of life for its citizens by 2030 in a clean and secured environment. The vision is anchored on three pillars; economic, social and political governance.

The key objective of ~~vision~~-Vision 2030 is "to make the country globally competitive and prosperous with a high quality of life by 2030." The vision is anchored on three pillars: 1) Economic; 2) Social; and 3) political Governance. The social pillar of Vision 2030 seeks to create "a just, cohesive and equitable social development in a clean and secure environment". It, therefore, presents comprehensive social interventions aimed at improving the quality of life of all Kenyans and Kenyan residents. The vision classifies interventions in the social pillar into six broad areas of focus. These include education, health, water and sanitation, environment, housing and urbanization, and gender, youth and vulnerable groups.

The education sector diagnostics looked comprehensively at issues affecting education and training. The diagnostics covered access to education, quality, equity, relevance, institutional management and capacity development. The Vision for education and training is

“Globally Competitive Quality Education, Training and Research for sustainable development”. The strategies for achieving this vision have been categorized into seven strategic thrusts. These were early childhood development education (ECDE), primary education, secondary education, special education, adult education, TIVET and University.

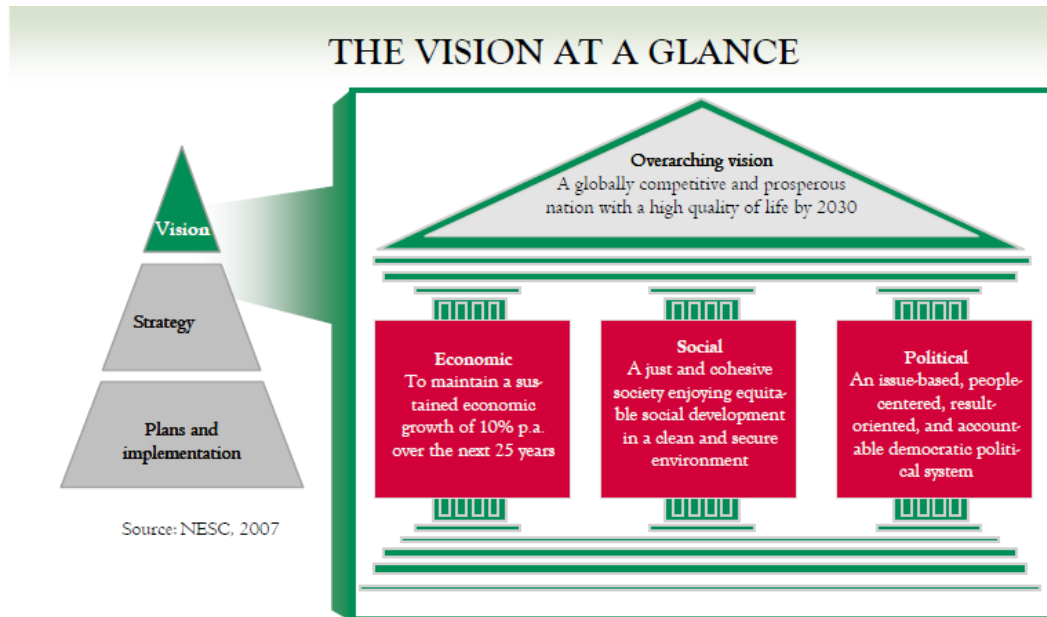


Figure 1: Kenyan Vision 2030 (Source: The Bulletin of the Institute of Economic Affairs, 2007)

TUM's Vision is stated as *a university of global excellence in advancing Knowledge, science and Technology*. The mission is, *to provide leadership and outstanding programmes by engaging in scholarly reflection, cultivating critical thinking and advancing creative problem-solving skills in the fields of engineering, the sciences, business and related areas that benefit society*. The Philosophy states that *TUM shall endeavor to offer opportunities for access of commensurate scientific, technical, entrepreneurship education and research skills for innovation and creativity to enhance employment opportunities for wealth creation*. The core values states that the management, staff and students of the TUM will endeavour to institutionalize, and inculcate values that foster a strong corporate culture that promotes excellence, cohesion and achievement. TUM espouses the following values in the conduct of all its functions: Professionalism, Equity and Social justice, Efficiency and Efficacy, Commitment, Service Delivery, Team Work, Creativity and Innovativeness, Integrity, and Environmental sustainability

In strategizing the social pillar, the Kenyan Government has recognized the award of the University Charter to TUM as marking a major milestone on the Vision 2030 Social Pillar, which underscores the need for intellectual development to meet the emerging demands. Kibati (2012) notes that TUM would help promote higher education development countrywide. He disclosed that the Vision 2030 Secretariat was considering identifying TUM as a Marine Studies and Technology Centre of Specialization. He also remarked that TUM stands a good chance of progressing on to become Vision 2030 Centre's of Specialization in Tourism, Hospitality, and Marine based Science & Technology disciplines.

The University has four well-established Faculties and Schools, namely Faculty of Applied and Health Sciences, School of Business, School of Humanities and Liberal Studies, and Faculty of Engineering and Technology. The University has also continued to offer TIVET programs alongside the other programs as provided in the Legal Order. As a result of demand for TUM programs, the student population has tremendously grown over the years, attracting both genders in the three thematic areas.

TUM has modelled itself as a “learning organization,” that continually aims at improving the provision of learning opportunities to its employees. Since elevation into a University, TUM has recorded tremendous all round growth, making her one of the fastest growing Universities in the region. To sustain the growth and reposition as a world-class university of Engineering, Science and Technology, TUM has continued to develop policy instruments, infrastructure and human resources that are dynamic and responsive to the Country needs. Also the University has signed collaborative agreements with leading international institutions of higher learning to partner in research, training and technology transfer. In line with government policy to increase access to University Education, the University has opened two strategic satellite Campuses in Kwale and Lamu County. Plans are underway to open a new Campus in Kilifi County. These Campuses have made it convenient for deserving students to access TUM degree, diploma and certificate programs without necessarily coming to the main Campus. The transition to the Technical University of Mombasa is therefore timely as the Country moves forward in addressing the social pillars of the Kenya vision 2030.

The main objectives of the paper include: (1) To examine synchronization of TUM's strategic plan to Kenyan Vision2030, (2) To examine strategic implementation barriers that can make TUM not realize its vision, and (3) Make propositions on viable strategies for TUM in overcoming the implementation barriers. The paper is set out as follows. We start with a literature review on strategic planning and strategic implementation practices and barriers. Next, we outline the research methodology for the above objectives. In the subsequently section, we give a synchronization of TUM's Strategic Plan(2014-2018) with that of Vision2030. This is followed by a discussion on the findings on implementation barriers. The study ends with recommendations and conclusion on the realistic strategies that TUM can adopt.

II. LITERATURE REVIEW

Mintzberg and Lampel (1999) and Tsoukas and Knudsen(2012) observed that there are at least a dozen different views on strategy that is derived from Greek words “stratos” and “agein”. According to Bailey (2007), when combined into the term “strategos” it means the art of troop leader, office of general, command or generalship. In military context, strategy is defined as the art and science of identifying, assembling and marshalling troops and equipment of war in a manner that must guarantee the complete defeat of the enemy. Bailey enumerates different definitions of strategy in the context of business management that can be summarized as a way of action that is necessary to achieve the main goal given scarcity of resources. In other words, it is about gaining a competitive advantage over adversaries given a set of options (Ahmed, 2014).

Planning, as defined by Bateman and Zeithml (1993), is a conscious, systematic process during which decisions are made about the goals and activities that an individual, group, work unit or organization will pursue in the future. It provides individuals and work units a map to follow in their future activities. Combining the word "strategic" and "planning", Steiner (1979) defines the joint terms as the systematic and more or less formalized effort of a company to establish basic company purposes, objectives, policies and strategies. It involves the development of detailed plans to implement policies and strategies to achieve objectives and basic company purposes. Wendy (1997) describes the strategic planning process as comprising analysis, choice and implementation. These three elements enable organizations to turn its vision or mission into concrete achievable objectives. Bryson (1989), Stoner (1994) and Viljoen (1995) argue that strategic planning assists in providing direction so organization members to know where the organization is heading and where to expend their major efforts. It guides in defining the business the firm is in, the ends it seeks and the means it will use to accomplish those ends. According to Crupta, Crollakota and Srinivasan (2007) strategic direction involves developing a long-term vision of the firm's strategic intent. Ilesanmi (2011) clarifies that a vision is simply a shared mental framework that gives form to the future of an organization. It must be challenging, create a purposeful and more tangible perception of a promise to a brighter future. Ilesanmi further emphasizes that when people talk about shared vision in organizations, it is expected that members of the organization share a common mental image of the future, which integrates their efforts towards the future state.

Strategic management is the art and science of *formulating, implementing, and evaluating* cross-functional decisions that enable an organization to achieve its objectives. Strategy formulation includes developing a vision and mission, identifying an organization's external opportunities and threats, determining internal strengths and weaknesses, establishing long-term objectives, generating alternative strategies, and choosing particular strategies to pursue. Strategy implementation requires a firm to establish annual objectives, devise policies, motivate employees, and allocate resources so that formulated strategies can be executed and is often called the action stage. Finally, strategy evaluation is the reviewing of external and internal factors that are the bases for current strategies, measuring performance, and taking corrective actions. This research tries to identify the obstacles of strategic implementation and how they can be overcome with specific reference to TUM. Johnson and Scholes (2002) makes a distinction between the intended(planned) strategy and realized strategy as shown in Figure 2.

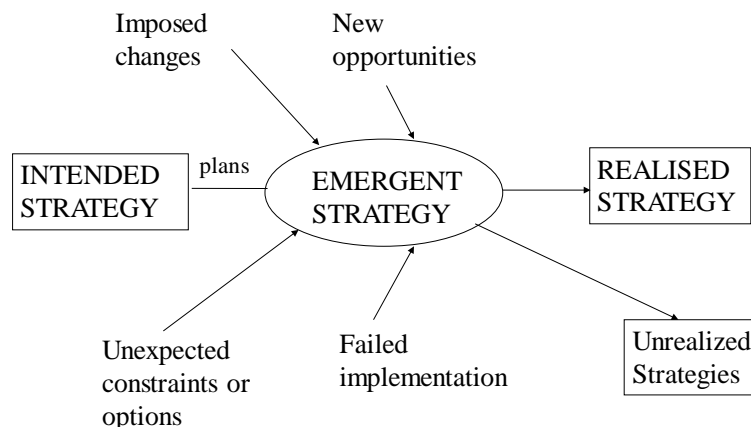


Figure 2: Realities of strategy development (Source: Johnson & Scholes, 2002)

The realized strategy is a blend of intentions and emergence, which can be interpreted by reference to the strength of pressure from the external environment—a kind of environmental determinism (Mcgee, Thomas & Wilson 2005 p 11). Intended strategy, on the other hand, is conceived by the top management after a thorough process of negotiation, bargaining, and compromise, involving many individuals and groups within the organization. The realized strategy is only part of what was originally planned and according to Mintzberg (1994) only about 10–30 % of intended strategy is realized. An emergent strategy is more operational with some flexibility on current demand. It is adopted on instances where an organization lacks specific mission and goals. An organization will adopt an emergent strategy as a method of learning while in operation.

van Vught (2003) observes that the demands on university education is putting a big responsibility on governance and management of institutions. But with the rapid increase in the number of universities in Kenya, this does not come-up as a surprise, for example, the number of universities increased from 13 in 2003 to 26 in 2012 (ROPb, 2013). Rasmussen (1998) affirms that the use of strategic management in the steering of the universities has become indispensable. Several researchers have stressed the need of strategic management in different tune and styles. For instance Davis (1995) applauds that universities should become ‘entrepreneurial’; Clark (1995) insist they should be ‘innovative’; de Boer (1996) suggests that they should be run in a ‘corporate style’; while Geurts and Maassen (1996) advocates ‘managerialism’, ‘business-like’, and ‘external orientation’. Bryson (1988) concludes that the increase in operational complexity requires universities to embrace strategic management ever than before.

Machado and Taylor (2010) observe a number of significant factors that can change the strategic management landscape in higher education. Market forces and dynamism are exerting significant impact on management and running of the universities. The current landscape in Kenya is where public universities are forced to diversify their programs, establish flexible learning schedule, set-up campuses away from the traditional location. These are only but a few of the many challenges. With awarding of charters, university independence and autonomy grows, so do institutional responsibilities and accountability. Outcomes then determine the future level of autonomy for an institution. Taylor, Amaral and Machado (2004) observe that the strategic problems facing institutions of higher learning are similar, that is: (1) The inadequate funding of public higher education through the protective cloak of the existing welfare state, (2) The inability to adequately manage emerging massification, and (3) The lack of experience and expertise to confront the current and projected demographic decline in students. According to Brinkschröder (2014), the strategy implementation process is inter-twined between structures and behaviour. People and their behavior play a significant role, as they are the ones who respond to the organizational strategy. The people have defined roles linked to the organizational structures that affect their behavior, but the converse is also true i.e. people's behavior has an influence on the organizational structure. Brinkschröder summarizes the challenges underpinning each of the element as shown in Table 1.

Table 1: Challenges of strategy implementation (Source: Brinkschröder, 2014)

Strategy	Behaviour	Structure
Formulation & Planning <ul style="list-style-type: none"> • Give people the change to contribute where the payoff is highest • Consistency of strategy • Stating what not to do and what is most important 	Commitment <ul style="list-style-type: none"> • Resistance • Involvement and integration of lower levels 	Cross functional <ul style="list-style-type: none"> • Little reward, no relief from normal responsibilities for implementers • Tension between departments • Physical barrier, location • Turf barriers • Cross- functional systems
Consensus <ul style="list-style-type: none"> • Lack of clear, common understanding • Poor understanding of broader scope and goals • Lack of strategic consensus and clarity 	Leadership <ul style="list-style-type: none"> • Combination of technical skills, interpersonal skills and sensitivity to the needs of other functions • Balance between powerful charismatic leadership and sufficient autonomy for employees • Consistency of leadership • Capable, contributing, competent, effective and executive leader 	Resource allocation <ul style="list-style-type: none"> • Coordinating and integrating activities of participating individuals and functions • Leave room for experimentation • Throw away of knowledge • Realignment
	Cultural context <ul style="list-style-type: none"> • Set tone, pace and character • System of shared values 	Control <ul style="list-style-type: none"> • Go no go decision • Creativity inhibition & incentives • Balance between hierarchy and creativity & self-responsibility in connection with business strategy

		<p>Communication</p> <ul style="list-style-type: none"> • Common language and understanding • Lack of honest upward conversations about barriers and underlying causes by top-down management style • Poor vertical communication • Open dialog
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III. METHODOLOGY

The study employed a case study design necessitated by the fact that the objectives were confined to TUM's strategy synchronization (to Vision2030) and implementation barriers. The data collection instrument was a questionnaire consisting of structured closed and open-ended questions. Top management (Deans, CODs of all the faculties/schools and selected non-academic staff as shown in Table 2) were the study's key target respondents. Eighteen (i.e. about 70%) of the twenty six staff returned their questionnaires duly filled. Each respondent was also mandated to generate SWOT, PESTEL and Stakeholder's Analysis that were consolidated into coherent whole taking into account what was done in TUM Strategic Plan 2014-2018 (refer to Table 3, 4 and 5).

Thus, a qualitative research approach within a mixed methods design was used. Content analysis was used by making by systematic and objective inferences while identifying specified characteristics of messages and using the same to relate trends. This approach is useful in gaining fresh materials in what was thought to be unknown.

Table 2: Staff interviewed

ACADEMIC STAFF	NON-ACADEMIC STAFF
<ul style="list-style-type: none"> • Dean - Faculty of Engineering • COD - Electrical and Electronics Engineering • COD - Building and Civil Engineering • COD - Computer Science and Information Technology • COD - Mechanical and Automotive Engineering • COD - Medical Engineering 	<ul style="list-style-type: none"> • Finance Manager • Registrar • Procurement Manager • Director AQA • Deputy Director SGS • Director IRIE • Director PC/QMS
<ul style="list-style-type: none"> • Dean - Faculty of Applied and Health Sciences • COD - Pure and Applied Sciences • COD - Medical Sciences • COD - Environment and Health Sciences • COD - Mathematics and Physics 	<p>Both primary and secondary data was sourced and utilized for purposes of addressing the research objectives. Secondary data was extracted from existing published records such as the TUM Strategic Plan 2014-2015, Vision 2030 Second Medium Tem Plan, TUM profile, TUM Academic Policy Manual, the institution's Newsletter, among other sources. All these provided additional information and also aided the researcher with authentic and valid information sufficient enough to draw conclusions. Primary data was also collected on strategic planning process and also on some performance indicators using the likert type scale and qualitative approach.</p>
<ul style="list-style-type: none"> • Dean - School of Business • COD - Department of Business Administration • COD - Department of Accounting • COD - Department of Management Science 	
<ul style="list-style-type: none"> • Dean - School of Humanities & Social Sciences • COD - Hospitality and Tourism • COD - Liberal Studies & Community Development • COD - Communication Studies 	

Table 3: SWOT Analysis

	Opportunities (External)	Threats (External)
Strengths (Internal)	<p>How can TUM use its strengths to take advantage of the available opportunities?</p> <ol style="list-style-type: none"> 1. Use the <u>simulator</u> to exploit the Port and Maritime environment (undertake marketing) 2. Spread/reduce the fees to make it affordable (by leverage on <u>building ownership</u>) to attract more students 3. Make use of the <u>infrastructure</u> (lecture halls, library, 	<p>How can TUM use its strengths to overcome the threats identified?</p> <ol style="list-style-type: none"> 1. Thrash-off <u>misplaced priorities</u>, conflict of interest by adherence to university policies, standards (ISO) 2. Lower or have uniform fees compared to competitors in the region to make university <u>education affordable</u> 3. Have a focus on training and continuous improvement especially to the <u>weak staff</u>.

	<p>laboratories) to gain competitive edge</p> <ol style="list-style-type: none"> 4. Use <u>AQA/QMS Directorate</u> to monitor quality education (encourage punctuality, class sessions, part-time lecturers, value for money paid, etc) 5. Using <u>qualified staff</u> and undertake proper marketing to offer professional courses in the region 6. Capitalize on the <u>location</u> and do marketing to attract more students 7. Using <u>TUMEL</u> and other linkages to facilitate scholarship acquisition through HELB or alternate sponsors 8. Using the <u>ICT Directorate</u> in conjunction with Faculties/Schools initiate online learning. 9. Make use of the <u>website</u> for online access to information (programs), advertisement and marketing 10. Capitalize on the <u>expertise</u> to come up with new market-driven programs 	<ol style="list-style-type: none"> 4. Provide infrastructure to make TUM learning atmosphere <u>attractive</u> to the students (e.g. especially on the new campuses at Kwale and Lamu) 5. The building (especially lecture halls and laboratories) should be equipped with <u>modern items</u> (e.g. mounting projectors, smart TVs, computing, etc) 6. Ensure <u>steady-cash flow</u> by introducing early payment incentives e.g. offer 10% discount on full fees settlement at registration 7. Undertake and maintain call-in registers to curb <u>staff absenteeism</u> that compromises on quality standards. 8. Ensure <u>money paid is accounted</u> for through proper authorization and audit 9. Offer competitive packages to avoid staff <u>brain drain</u> 10. Offer <u>attractive programs</u> as per the market needs and competition
<p>Weaknesses (Internal)</p>	<p>What does TUM need to do to overcome the identified weaknesses in order to take advantage of the opportunities?</p> <ol style="list-style-type: none"> 1. <u>Recruit marine professionals</u> to run the degree programs and executive seafarer training 2. Provide <u>competitive packages</u> (benchmarked against other universities) for staff retention 3. Come-up with <u>novel marketing strategies</u> to recruiting students to TUM 4. Train and <u>recruit ICT professionals</u> and relevant experts to initiate e-Learning 5. Open <u>regional offices</u> in town centers as opposed to rural areas to gain visibility 6. <u>Outsource subordinate staff</u> (e.g. accommodation, environmental staff, etc.) to create conducive learning environment (e.g. classroom cleanliness, landscaping, etc.) 7. Introduce <u>flexible modes of learning</u> (e.g. weekends, distance-learning) to tap-in more students 8. <u>Outsource accommodation</u> to private investors 9. Commit to a thorough <u>annual staff evaluation</u> to weed out incompetent staff and replace with better staff. 10. Strengthen <u>TUMEL</u> with <u>outside expertise</u> to operate as purely commercial entity 	<p>How will TUM minimize its weakness to overcome the identified threats?</p> <ol style="list-style-type: none"> 1. Test TUM students in the job market by <u>undertaking employer surveys</u> as a quality test 2. Admission letters to be <u>given on the spot</u> if one qualifies 3. Establish <u>university kiosks</u> in strategic locations to undertake marketing of the university 4. Introduce a <u>monitoring a measurement system</u> (e.g. a register, inspectors, etc.) that will complement performance charter 5. <u>Reduce fees</u> if not lower than competitors 6. Create a <u>scholarship advisory office</u> to educate students where they can get funding 7. <u>Tidiness and renovation</u> should be carried out on both the old and new buildings - to make them attractive 8. On regular basis, <u>educate the staff on HIV/AIDs</u> and other life threatening diseases 9. <u>Fence TUM land</u> to intensify security and avoid the culture of illegal acquisition 10. <u>Undertake career talks and sensitization</u> to generate interest in education within the local community

Table 4: PESTEL Analysis

	Key Trends	Impact
<p>Political</p>	<p>Regional set-up of the universities and partnership with the local government. Avoid conflict of interest and undue influence in the administration of the university. Seek support from politicians especially on the new campuses. Local politicians unresponsive and political goodwill is very much needed.</p>	<ul style="list-style-type: none"> • Compromising standards of education and training • Poorly planning can lead to chaos and misappropriation of funds • Sense of lack of ownership of the campuses can breed hostility with the local community
<p>Economic</p>	<p>Lack of adequate funding from the Exchequer and the prevalent poverty level that limits the number of students to have access to university education. Inflation affects income hence inability to pay fees. Fees raise</p>	<ul style="list-style-type: none"> • Compromising standards in practical training • Low class numbers and high dropout rate • Most students cannot afford and are not able to complete their studies

	consultation must be done early, and also sensitize the students on the benefits they will expect due to increment	<ul style="list-style-type: none"> Frequent students strike may lead to losing credibility and competitive edge
Social	Nepotism and tribalism is taking toll on the advancement of education. Drugs and substance abuse coupled with poverty level has adversely affected the enrolment rate from the local community (the college is dominated by students from upcountry). This has negatively affected the education in the region	<ul style="list-style-type: none"> Compromised tendering and supply procedures Increase in peer pressure and students unrest There is a rift among the employers and county government. Quite a number of students from TUM, eventually get employed and settled in Mombasa county
Technological	The competitiveness of universities is also measured by access to ICT that is highly underscored for TUM. The recommended ratio of one PC for two students is far from reality. Staff unwillingness to embrace electronic age and effective use in communication. Technological programmes require high capital base and TUM is highly underfunded on it	<ul style="list-style-type: none"> Compromising practical training technology Outdated equipment with no studios makes TUM to be unattractive Students not empowered on technology and innovations and not able to compete in the market
Environment	TUM has natural resource, the marine environment that has been much under-utilized.	<ul style="list-style-type: none"> TUM is losing competitive edge in both marine science and maritime commercial TUM's niche, as a Marine University, is not pervasive
Legal	TUM is guided by statutes and policies through award of Charter under University Act 2012 and cognizance of the TVET Act 2013. Students discipline is paramount to good citizenship and abiding by the law.	<ul style="list-style-type: none"> TUM has fully autonomy; TIVET provides transition from certificate and diploma course to degree, master and doctorate qualification Indiscipline can lead to students expulsion from the university or prosecution by law Indiscipline can also lead to disharmony with county government

Table 5: Stakeholders Analysis (Source: TUM Strategic Plan 2014-2018)

Stakeholder	TUM Interests/Expectations	Influence/Power	Needs	Stakeholders Expectations
Students	<ul style="list-style-type: none"> To get quality education Complete the studies Affordable services Discipline and law abiding (a better citizen) Academic excellence Respect for authority Ethical responsible 	Parents, lecturers, mentors	Quality education	<ul style="list-style-type: none"> To get jobs after completion Timely graduation Professional guidance and counseling Clean and safe environment Adequate and quality learning facilities Conformance of programs to relevant professional bodies Variety of academic programmes Adequate health and recreation facilities Safe accommodation facilities Affordable and good quality catering services Defined programmes schedules
Parents, Guardians and sponsors	<ul style="list-style-type: none"> To ensure their children get the best education Timely graduation of students 	Parent Association	To enable self-independence of their children	<ul style="list-style-type: none"> To be reliable citizens Value for money Quality programmes Safety, health and security of

	<ul style="list-style-type: none"> • Prompt payment of fees • Guidance and counseling of students • Ambassadorial role 			<p>students</p> <ul style="list-style-type: none"> • Adequate facilities • Employable graduates • Scholarships for needy students
Lecturers and Part-time Lecturers	To give quality education.	Departments	Department support	<ul style="list-style-type: none"> • To produce good citizens • Facilitation • Better pay and promotion
Administrative and Non-teaching staff	<ul style="list-style-type: none"> • Continuity of university • Career satisfaction • Quality service delivery • Commitment and loyalty • Productivity in research • Ethical and responsible • Respect for authority 	Council and Top Management	Good working conditions	<ul style="list-style-type: none"> • Better pay and promotion • Justice, equality, training and development • Tenure of teaching faculty • Equity and meritocracy • Continuing education • Sustainability of the University
Local community	<ul style="list-style-type: none"> • Business and jobs • Good relationship with university • Social programmes • Acceptance and cooperation • Promotion of higher education values 	County Government	Corporate Social Responsibility	<ul style="list-style-type: none"> • Peaceful coexistence • To be operational • Employment opportunities • Needs-based corporate social programmes • Educational and training opportunities • Business opportunities
Industry	<ul style="list-style-type: none"> • Competitive students • Sharing information • Feedback on quality graduates • Placement and attachment opportunities for students and staff • Joint commercialization of ideas 	Market needs	Ready availability of manpower	<ul style="list-style-type: none"> • Funding research • Competent and employable graduate • Relevant academic programmes • Sharing of research and innovation • Joint research activities
National Government	<ul style="list-style-type: none"> • Regular and adequate funding • Development of policy governing University education • Facilitation and collaboration with development partners 	Constitution	Realization of Vision 2030	<ul style="list-style-type: none"> • Quality HR capacity for national development • Programmes based on national development needs • Innovations for industrialization • Technology and knowledge transfer • Proper utilization and accountability for resources • Promotion of national cohesion • Facilitate accessibility to higher education
County Government	<ul style="list-style-type: none"> • Partnerships • Research • Infrastructural development • Regular and adequate funding 	National Government	Regional development	<ul style="list-style-type: none"> • Quality HR for national development • Programmes based on national development needs • Innovations for industrialization • Needs-based community outreach • Technology and knowledge transfer • Proper utilization and accountability for resources

				<ul style="list-style-type: none"> • Promotion of national cohesion • Facilities accessibility to higher education
Development partners	<ul style="list-style-type: none"> • Support and collaborations • Timely release of grants 	Partner	Growth and development	<ul style="list-style-type: none"> • Efficient use of donations and grants • Funded project outcome • Accountability
Research and other institutions of higher learning	<ul style="list-style-type: none"> • Development opportunities for staff • Peer guidance • Joint ventures 	Graduate programmes, publication, research funding	Research and innovation	<ul style="list-style-type: none"> • Collaboration in research and projects • Exchange Programmes • Sharing the use of critical equipment
Alumni	<ul style="list-style-type: none"> • Fundraising • Role modeling, mentorship and networking • Infrastructural development • Scholarships 	Members	Network, job placement, improving university welfare	<ul style="list-style-type: none"> • Comprehensive database of alumni • Strong relations with alumni • Involvement in university development activities and functions • Referencing and support
Professional Bodies	<ul style="list-style-type: none"> • Quality assurance of University Programmes • Assist in development of Programmes 	Administration	Becoming professional	<ul style="list-style-type: none"> • Quality academic Programmes • Qualified graduates • Sharing of information • Conformity to professional standards and ethics

IV. MATCHING TUM'S STRATEGY TO VISION 2030

On matching TUM Strategic Objectives to Vision 2030, Table 6 gives a summary based on TUM Strategic Plan 2014-2018 and Vision 2030 strategy (Ndung'u, Thuge&Otieno, 2010).

The Vision 2030's Social pillar has outlined the strategic objectives for TIVET and University front as follows:-

(a) Vision 2030 strategies for TIVET institution

1. Undertaking labour market skills survey and training needs assessment in collaboration with the industry and service sector;
2. In-service training and training for lecturers in technical education in line with skills oriented curriculum;
3. Developing a legal framework for a tripartite delivery mechanism in tertiary education and PPPs;
4. Providing an alternative path for accessing higher education and training up to degree level;
5. Mobilizing resources to rehabilitate TIVET institutions; and
6. Government support for private providers and industry, with the industry providing relevant support, such as, attachments and research.

(b) Vision 2030 strategies for expanding University education

7. Review of curriculum to reflect skills requirement in the realization of the 2030 vision;
8. Promoting rationalization of academic programmes among universities and creating Centre's of excellence;
9. In-service and training for lecturers (public and private) in line with skills oriented curriculum;
10. Empowering HELB to mobilize resources from the private sector;
11. Promoting the expansion of university education and training in tandem with population growth and the demand;
12. Promoting all private sector investment in university education and training;
13. Providing scholarships based on the needs of the economy;
14. Facilitating an all-embracing national accreditation system with credit transfer; and
15. De-linking accommodation and catering from admission.

Table 6: TUM Strategic Objectives Vs Social Pillar of Vision 2030 Objectives

S/N	TUM Strategic Issue	TUM Strategic Objective	Social Pillar of Vision 2030
1	Academic programs	Develop and review programs	1, 7
		Staff capacity building	2
2	Research, Innovation and Extension	To develop a research culture at the University	
		To promote innovation and extension	12
		To establish collaborative research linkages	
3	Access and Equity	To attend gender parity at all levels within the university	
		To enhance access to tertiary and higher education for marginalized groups	4
		Increase access and address the needs of the people with special needs	
		Introduce distance learning	
4	Finance and Resource Mobilization	Consolidate existing sources of funding	5
		Identify and tap additional sources of funding	5
		Put in place mechanisms for prudent financial management	5
5	Manpower Plan and Human Resource Development	To attract and retain competent workforce	
		To develop existing staff by equipping them with relevant skills	2, 9
		Provision of conducive working environment	
6	Infrastructure Development	To provide appropriate infrastructure for academics, scientific and technological training and administration	2
		To maintain the existing infrastructure	
7	Produce competitive graduates	To produce graduates with a high level of general knowledge, technological capabilities and competitive skills	
		To provide students with appropriate combination of ability and attitudes for success in the twenty first century	
8	Partnerships and Linkages	To enhance the international experience of faculty and students in the areas of teaching, research and curriculum development	
		Enhance connections between alumni and students	6
		To further collaborations through academic programs in student exchange and faculty development	6
		To contribute further to the regional understanding between both countries and both universities through mutual cooperation programmes	
9	Community Outreach and Transfer of Technology	To provide needs-based community extension services	
		To facilitate transfer of appropriate technologies and diffusion of new knowledge across the various sectors of the Kenyan economy	11
10	Alumni Relations	Communicate strategically with graduates to create and enhance affinity to the campus	
		Enhance connections between alumni and students	
		Expand opportunities for alumni involvement	

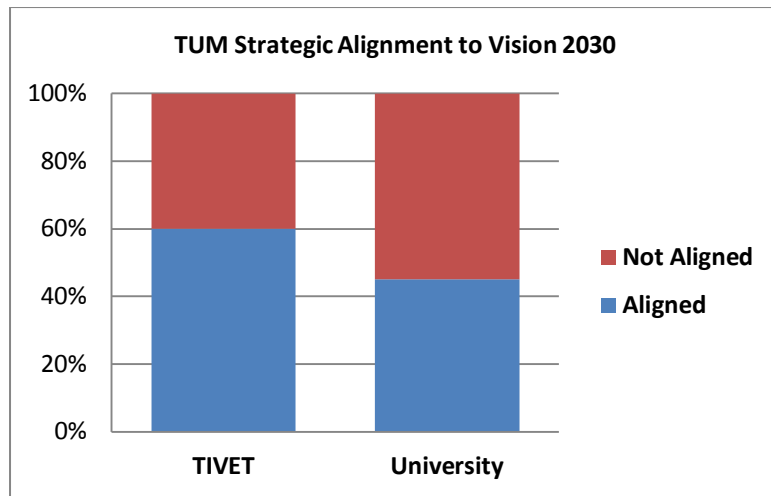


Figure 3: TUM Strategic Alignment to Vision 2030

About 60% of the respondents confirmed that TUM Strategic Plan is aligned to that of Social Pillar of Vision 2030 as TIVET and about 45% as the University. However, they pointed out the following strategic objectives are not captured in the strategic objective i.e. refer to part (a) and part (b) below:

(a) TIVET Institute

- Undertaking labour market skills survey and training needs assessment in collaboration with the industry and service sector;
- In-service training and training for lecturers in technical education in line with skills oriented curriculum;
- Providing an alternative path for accessing higher education and training up to degree level;
- Mobilizing resources to rehabilitate TIVET institutions.

(b) University

- Promoting rationalization of academic programmes among universities and creating Centre's of excellence;
- In-service and training for lecturers (public and private) in line with skills oriented curriculum;
- Promoting all private sector investment in university education and training;
- De-linking accommodation and catering from admission.

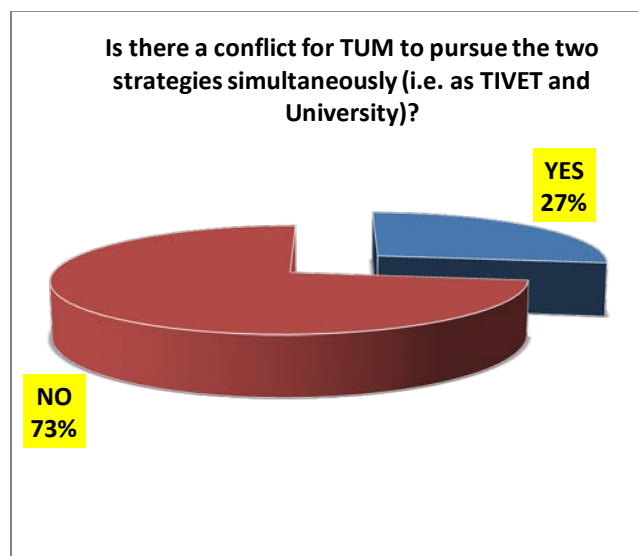


Figure 2: TUM's TIVET Vs University Strategy

Majority (about 73%) concur that there is no conflict for TUM to pursue the two strategies simultaneously citing that it is not only provided for by the constitution but TIVET programmes are the primary source of clients to the university and should be strengthened. On the foregoing basis, the proponents call for strengthening of TIVET programs and aligning them in parallel to the university objectives. Those who affirm existence of conflict (about 27%) argue that majority of the TIVET courses offered at TUM are also on offer by the competitors (i.e. MTI and GTI). Further, they noted Marine not to be a TIVET program. The first argument dwells more on competition than strategy and cannot be relied as a strong measure of conflict. Similarly, marine courses are also TIVET at the seafarer training level.

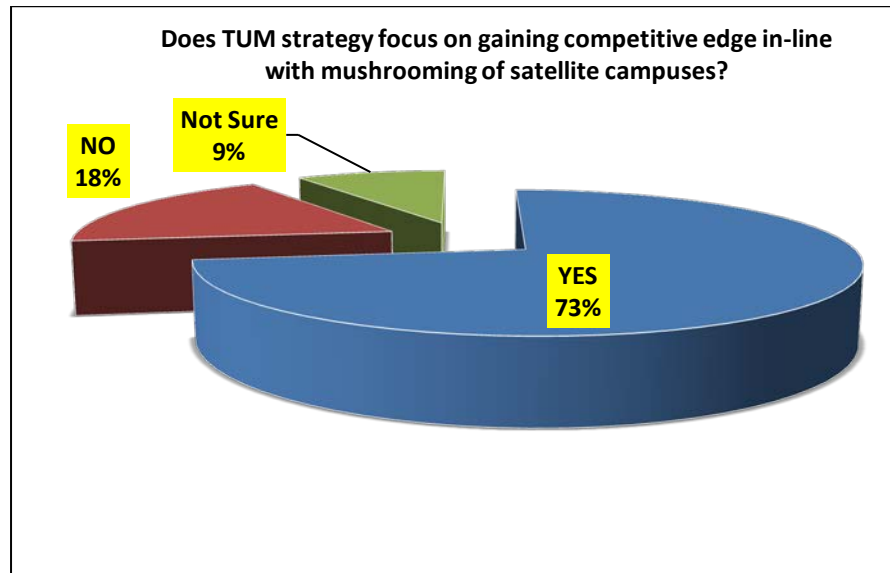


Figure 3: TUM's Strategic Focus

Figure 3 shows that about 73% of the respondents affirm on the competitiveness of TUM's strategy in-line with mushrooming of satellite campuses. The following facts have been stated to support the competitiveness notion:

- i. The establishment of fully fledged Seafarer Training and MET department shall give TUM an edge
- ii. Adoption of new courses in the market to be compatible with the market requirements
- iii. Production of competitive graduates
- iv. On the objective on finance and resource mobilization, TUM has opened two satellite campuses. This is the diversification strategy meant for competition and generation of more revenue.
- v. The existence and establishment of the Institute of Research, Innovation and Extension (IRIE) to spearhead research, innovation, linkage and collaborations
- vi. By offering unique programs, partnering in science and engineering. Pursuing hospitality based courses that are novel. Pursuing to offer Marine based courses
- vii. Achievement of goal oriented results. Developing several new and relevant programs.

TUM's focus on establishing a Marine Center as a niche, although not highlighted in the Strategic Plan 2014-2018, has 70% indication towards its fulfilling this particular goal. The respondents affirmed with the following remarks:

- Establishment of a Marine Center of Excellence
- MoU with the Arab Academy for Science Technology and Marine Transport.
- Development of Professional Marine Training and Certificate courses.
- Conducting a training needs assessment for lecturers currently delivering marine units in both nautical science and marine areas
- TUM is working closely with maritime industry experts to bring onboard the exact requirements
- Several new marine programmes have been developed
- It is the only university in the region that has acquired simulator for training. Recently TUM delegation visited Germany on matters concerning Oil and Gas research. To explore the resources in the ocean, the simulator will be used to navigate the process

V. STRATEGY IMPLEMENTATION

TUM has put in place some support systems for successful implementation of the strategy, notably, these include professionalism, accessibility and transparency. Similarly, quality management systems and the establishment of the office of performance contracting is a testimony to the support offered to strategic plan. In addition, the departmental heads have been mandated to execute the strategic plan with clear guidelines and target. It is also their responsibilities to cascade the plan down to all employees, and integrate it as part of the appraisal system and performance charter. Several other mechanisms have been put in place that directly or indirectly support the process. For instance, there is steady cash flow since students are not allowed to sit for exams before fees completion, in effect, this helps to avail required resources at the right time. Likewise, development of new programs are subjected to vigorous checks by AQA Directorate to ensure compliance with CUE requirement. MIS System have been made user friendly with ready support from ICT section and other dedicated staff.

As a result of the above support systems, TUM has made successful implementation strides but at a relatively low pace compared to other universities. The increase in number of degree students (especially from Kenya Universities and Colleges Central Placement Service) and mounting of new courses is a testimony for this. This shows that more and more citizens are developing confidence in TUM. There has been several MoUs with different universities and industry for research collaboration, partnership and linkage. The recent ISO certification has given credit to the processes, system, policies and guiding procedures guiding TUM. Similarly, the Compliance with National health, safety and security standards adds on the implementation effectiveness.

Although the launching of TUM's Strategic Plan is recent, there are several implementation challenges worthy of discussion. These challenges emanate from the nature of the institution having evolved from three distinct stages (from tertiary to MPUC and finally to TUM). But also, the decline in the number of students enrolling serves as an indicator of strategy not being fully implemented. On another dimension, there have some structural challenges that, in a way, also hampered the implementation. These include development of new schools and diversification in employment opportunities. However, the major challenges TUM encounters can be summarized into organization structure, leadership style, human resource, ICT, finance, culture and reward system.

Structure: Organization structure is important because it guides in allocation of duties, however, at TUM it is evident that the structure is not conclusive enough in helping to achieve its objectives, missions and vision hence, a challenge to strategic plan implementation. To a very large extent, there is poor delegation, poor confirmation and follow through, which is a major drawback. There is a dire need for capacity building in structure and overhaul in some areas.

Leadership: leadership ensures coherent management of information, personnel and programmes. The study found out that leadership traits are lacking in some management staff, posing challenge to capacity to direct and supervise strategic plans implementation. The capacity is essential because it influences the activities and even the attitudes of the lower level employees. Lack of leadership skills is evident in the recurrent staff complaints about some of their supervisors. There is poor communication and coordination of activities with bias relationship. There is also lack of familiarization of the principle players within the strategic role and execution.

Human Resource: The role of human resource management is to plan, develop, and administer policies and programmes designed to make expeditious use of an organization's human resources. The study noted that human resource was not given much attention with some sections understaffed; there is shortage of well-trained and highly qualified personnel. There is lack of enough lecturers to facilitate several degree programs and there is over reliance on part-timers. Some of the lecturers are not committed to excellence in teaching, have no commitment, weak loyalty, low ethics and professionalism. Despite several request, HR Department has not done much in terms of bringing in manpower to those sections citing financial constraints.

ICT: Although ICT is a key management tool that helps in fast tracking all the activities, its visibility in TUM is weak. It was discovered that where data was not captured adequately, it impacted negatively on the clients and strategy execution. TUM has weak accounting systems that have witness expensive revenue leakages. Unfortunately, the top management has not taken this as a major challenge. Instead, they have been addressing symptoms by investing in a more robust ICT system that will minimize complaints by clients and staff. But even then, the eRegister usage, although meant to bring efficiency and effectiveness has been slow and frustrating. Majority of the users have no access to internet and lack necessary IT skills to appreciate the system. Most of the users find the system too demanding of their time with relative low monetary reward than if they are engaged in other duties.

Finance: There is lack of sufficient funds to realize the strategy as formulated. It has become a culture where many projects initiated and undertaken are abandoned half-way and remain uncompleted with sub-standard materials being used. The Learning Center is incomplete, Kwale Campus infrastructure is wanting, establishment of the medical School requires heavy funding, are just to name but a few of the examples. If TUM is to establish a Maritime Center, it has to sacrifice and prioritize many of the pending projects that, too, require heavy funding. Similarly, due to funding, many infrastructures are either missing or not efficiently established, notably ICT and security apparatus (such as CCTV, electronic ID or Door Access cards, etc). Most strategic initiatives, such as new programmes and infrastructure developing, anticipated availability of funds from the exchequer - such funds are not available, stalling the strategies.

Culture: Organizational culture proved to be a major and unique challenge to strategy implementation at TUM. Having evolved from the three distinct levels, the drastic shift of cultures from tertiary mind set to University College mind set and to a fully-fledged university mind set present tremendous strategy implementation challenges. There is always resistance but through enlightenment and orientation staff become co-operative and finally adopt to the change. The initial thought was that strategic planning belong to top management and other employees were not involved. But now it is clear that all players are involved, from the administrators (e.g.VC, DVC, Registrar, Deans and CODs) through academic staff to non-academic staff (Finance, Procurement) and subordinate staff. Policies, procedures and processes were singled out as cultures that impede strategy implementation because they are time wasting, lengthy and cumbersome. However, the institution strategy of taking staff through training, workshops, management talks and service charter talks is slowly but surely cultivating the desired culture.

Reward and Monitoring System: Most noted was the poor reward system that the top management has often failed to address. This was seen as a challenge when lack of motivation was cited as one of the factors that hinder effective strategy implementation at some level of the institution. Inadequate facilities and understaffing in key Engineering programmes were noted as among crucial challenges worth giving attention by top management. Although monitoring and evaluation was found to exist and undertaken by Directorate of Performance Contracting that reports on quarterly basis, but this is limited to the activities captured in the signed contracts. Controls and checks to ensure tasks are undertaken within the budgeted time frame were cited as a major challenge to strategy implementation.

VI. CONCLUSION AND RECOMMENDATIONS

In conclusion, we can confidently say that strategic plan in TUM has been received positively and looks promising. Most often managers invest a lot of time in planning but the important part about strategy is the implementation. To ensure management does not lose the grip of the implementation, there needs to be a monitoring team, which would track the strategic initiatives using the relevant KPI for each of the objective. Such KPIs should be SMART with an element of both financial and non-financial measure and be assigned to a champion, as someone who will drive and realize a set target. In addition, TUM should be able to quantify the required resources needed to drive each of the initiative and thrash-off any misplaced priorities. Further, the KPIs should be reported to the top management on regular basis with a dashboard, like a Balance Scorecard, displayed in a strategic location, for viewing and action. On the same breadth, on regular basis, all staff should know the status or progress of the strategic initiatives and what percentage has been realized. All these is possible if top management cultivate team work and avoid conflict of interest or personalizing offices by adherence to university policies and standards (ISO).

To guide TUM realize its vision, the study came-up with several recommendations that are either strategic in nature, missing in TUM Strategic Plan 2014 - 2018 or pose as a barrier to the strategic implementation.

Outsourcing and De-linking: TUM should consider de-linking accommodation and catering from admission. This can be done by partnership with the private sector to provide accommodation services to the students at affordable rates. To focus on the core function of the university, TUM should outsource subordinate staff duties, such as, for accommodation, ICT Help Desk, and environmental.

Research and Extension: TUM with a marine simulator, the only one in East and Central Africa, lacks a maritime strategy. There is a need to launch marine related programmes and establish Centre of excellence in maritime. Ensure effective linkage between science experts, public policy makers and education leaders to enhance sustainability in coastal marine system. Train, inspire and empower the people to be maritime enquire leaders. TUM should think about interactive development through providing appropriate infrastructure for academics, scientific and technological training and administration. There is a need to have a strategic objective to embrace more modern technology in all fields and champion collaborations. This in turn, will enhance the coastal economy through research and application of new knowledge as well as establishing loyal and reputable partners from private sector. There has been several scholarship advertisements but staff are not responsive to opportunities.

Human Resource: As a flagship project outlined in ROP (2003b), TUM needs to strengthen human capital by developing science, technology and engineering courses by training faculty at PhD and masters level. It was noted that TUM decided to inherit TSC teachers when they became a University, they now have a liability and need to develop clear strategies for training and transferring interested staff from instructors into lecturers. Recruitment of part-time lecturers into permanent is also a good and easy strategy to address the shortage of permanent lectures in key specialization areas. They also need to ensure that the staff are registered and engaged in different professional bodies. Similarly, in-service and training for lectures in line with skills development should be continuous. Head hunting of key personnel in niche programs could be a workable strategy. They, as well as the other staff, would then be retained by offering competitive packages, to avoid brain drain.

Leadership: Some respondents observed that there is poor delegation, poor confirmation and follow through are major drawbacks.

There is a dire need for capacity building in structure and overhaul in some areas. There is poor communication and coordination of activities with bias relationship (nepotism and tribalism is taking toll on the advancement of education). There is also lack of familiarization of the principle players within the strategic role and execution, as such, leaders should be able to provide direction and set funding on implementation. Resistance to change and lack of motivation was cited as one of the factors that hinder effective strategy implementation. Leaders should communicate and provide sufficient information on the strategic plan with clear accountability on the execution role. Similarly, to avert strikes, fees raise consultation and communication to the student must be done appropriately and timely.

Marketing: TUM needs to come-up with a marketing strategic plan. They need to have regional offices or kiosks in the central Business areas such as in Mombasa, Ukunda, Lamu, Malindi and Kilifi where competitors from outside the county have purchased big buildings and have strong presence. As a marketing strategy, TUM should spread or reduce the fees to make it affordable (by leverage on building ownership) relative to that of competitors. Using TUMEL and other linkages, they can facilitate scholarship acquisition through HELB or alternate sponsors. They can make use of the website for online advertisement and initiate career talks to secondary schools to generate interest in education within the local community. TUM needs to create a scholarship advisory office to educate students on where they can get funds.

Enrolment Strategy: TUM student enrolment strategy should be improved to reduced rigidity and take less duration. The competitors take the shortest time, actually 2 days from the time students' application to the time they are giving admission letter. On the contrary, it takes weeks or even a month to respond to a TUM applicant.

Setting-Up of Campuses: TUM is ambitious in their expansion and plans to launch a medical school very soon. There is another plan to open another campus in Kilifi County and one cannot rule out another campus in Mombasa Business Center. However, it will be more prudent to strengthen the infrastructure of the existing campuses in Kwale and Lamu before investing in a new one.

Relevant Courses: TUM has 2 satellite campuses and its planning to have more but there is need to ensure that courses in those campuses will benefit both TUM and the community. TUM should develop curriculum with unique programs that are attractive and competitive. They should be able to plan and generate the required resources needed to finance planned activities, especially if the new programmes require laboratories.

Entrepreneurship: Strengthen TUMEL with outside expertise to operate as a purely commercial entity. There are several proposals that can benefit TUM, for instance, venturing into real estate business, agriculture activities at Kwale campus, among others. As a source of income for the university, TUM should focus on business courses in their expansion strategy.

Security: Campus security need to be enhanced with modern equipment such as CCTV, electronic ID or Door Access cards, etc. Fence TUM land to intensify security and avoid the culture of illegal acquisition.

Monitoring and Evaluation: Most noted was the poor reward system that the top management has often fail to address. Although monitoring and evaluation was found to exist and undertaken by Directorate of Performance Contracting that reports on quarterly basis, this is limited to the activities captured in the signed contracts. Thus there is need to introduce a monitoring measurement system i.e. a Key Performance Indicator (KPI) for each of the strategic objective that will complement performance charter.

Infrastructure: Provide infrastructure to make TUM learning atmosphere attractive to the students (including at the new campuses at Kwale and Lamu). Tidiness and renovation should be carried out on both the old and new buildings - to make them attractive. Inadequate facilities and understaffing in key Engineering programmes were noted as among crucial challenges worth giving attention by top management.

ICT: TUM has weak accounting systems that have witness expensive revenue leakages. Unfortunately, the top management has not taken this as a major challenge. Instead, they have been investing in a more robust ICT system that will minimize complaints by clients and staff. But even then, the eRegister usage, although meant to bring efficiency and effectiveness has been slow and frustrating. Majority of the users have no access to internet and lack necessary IT skills to appreciate the system. Most of the users find the system too demanding on their time with relative low monetary benefits. There is a need to recruit ICT professionals who will initiate e-Learning in conjunction with the faculties/schools. Similarly, TUM need to provide state-of-art equipment (e.g. mounting projectors, smart TVs, computing, etc) in the teaching and encourage students to take technology related courses.

Finance: There is lack of sufficient funds to realize the strategy as formulated. It has become a culture where many projects initiated and undertaken are abandoned half-way and remain uncompleted with sub-standard material. TUM to ensure steady-cash flow by introducing early payment incentives e.g. offer 10% discount on full fees settlement at registration. They should solicit funds from other donors to sponsor specific projects.

Quality Education: TUM should be conducting regular employer surveys as a quality test to assess their students' performance in the job market. Although DAQA gathers information from student's lecture evaluation twice a semester to see whether they are satisfied with the services offered, there are many other variables for measuring quality. According to Oanda and Jowi (2012), common measures include caliber and sufficiency of academic staff, learning and teaching facilities, contact hours, entry behaviour of learners and governance structure. This will go hand in hand with provision of engineering and science equipment to the institutions as an initiative of addressing quality of education. TUM should consider undertaking and maintaining call-in registers to curb staff absenteeism that compromise on quality standards. However, the office of DAQA is thin with no manpower and needs to be strengthened if these measures are to be put in place.

Corporate Social Responsibility: The local community should directly or indirectly benefit from the establishment of the university or campus within their locality. The CSR can range from providing educational and training scholarships or subsidies fees, constructing boreholes or giving access to drinking water to the community (e.g. in Kwale Campus), cleaning the environment, etc. Also offer employment opportunities to the locals especially for subordinate roles that do not require high qualifications.

Industry and Alumnus Support: Approach industries to sponsor students either for a particular course (e.g. Base Titanium) or to undertake research relevant to the industry. The office of IRIE should be on the forefront to push for joint commercialization of ideas and sharing of research and innovation with the industry. Alumnus should be involved in university development activities and functions.

ACKNOWLEDGMENT

This research was supported by Technical University of Mombasa as part of research grant under the Institute of Research, Innovation and Extension.

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AUTHORS

First Author – Dr. Anwar Hood Ahmed, BSc, MSc, MPhil, PhD (Strategic). Director Kwale Campus at TUM, ahmedah@tum.ac.ke
Second Author – Dr. William Kingi, Dip, HDip, MSc, PhD (HRM). Dean School of Business at TUM, wkingi@tum.ac.ke
Third Author – Mr. Sameer Bachani, BSc, MSc. Chairman of Mechanical Engineering at TUM, sameerbachani@tum.ac.ke

Correspondence Author – Dr. Anwar Hood Ahmed, ahmedah@tum.ac.ke, ahmedah@yahoo.com, +254 711 572 412