Innovation: Why do We Lag behind?

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During the last few months, we witnessed SQU students reaching the highest levels at regional and international level student competitions. Many of them represented the country at international competitions and brought glory to the homeland. It is pleasing to see the students reaching high standards and making worthwhile contributions to the country.

Students from the Department of Earth Sciences won first place in the Middle East regional level contest of the American Association of Petroleum Geologists (AAPG) Imperial Barrel Award Program. Subsequently, the same team won third place in the global level contest the Imperial Barrel Award Programme. The completion was part of the annual convention and exhibition of the Association held in Houston, USA in April 2011. It was the first time for SQU to be qualified for the finals in USA and it is a big achievement for the university having scored the third prize.

A team from the College of Engineering participated in the International Submarine Race held in Maryland, USA in June. “Sultanah”, the submarine of SQU was the only one from Asia and the Arab World to take part in the race among 28 submarines and 24 teams from different parts of the world. It excelled many submarines that have experience in the race. Moreover, “Sultanah,” was the fastest submarine from outside USA and Canada.

When Microsoft Gulf, announced the regional winners of the Gulf Imagine Cup 2011 which concluded at the American University in Dubai in April, SQU had another reason to celebrate. After an intense competition amongst university student team finalists from Kuwait, and UAE, the Omani team, Edunology, from SQU celebrated their first-place finish in the regional finals for their project ‘Help Me Educate Others’. Adding joy to this, SQU team “Brothers Forever”, the only Arab team to reach the finals in the category of Digital Media, won second place in the Digital Media category of the Imagine Cup 2011 finals held in New York, USA.

These episodes of success which brings tremendous pride to the university, should encourage more students to continue striving for the best results.
SQU through its Deanship of Admissions and Registration, admitted 3133 undergraduate students for the academic year 2011-2012 with an increase of more than 400 students compared with last year's total admission figure. The College of Arts and Social Sciences received the maximum number of undergraduate students this year which is 593 students, followed by the College of Science with 525 students, Commerce and Economics with 520 students, College of Engineering with 455 students, College of Agricultural & Marine Sciences with 330 students, College of Education with 265 students, College of Law with 200 students, College of Medicine & Health Sciences with 155 students, and College of Nursing with 100 students. Moreover, SQU accepted another 16 Omani students transferred from Government and private institutions this year.

To simplify the students' admission procedure for SQU, the Deanship of Admission and Registration improved the newly introduced online system which allows the students to finalize their admission from their home computers by filling a certain form. However, they have to come to SQU to submit their original General Education Diploma and to obtain their SQU identity card. Furthermore, the Deanship formed a main committee this year that also includes the Deanship of Students Affairs, Student Counselling Centre, Foundation Program unit and the bank. This committee coordinates the work of five other committees. One committee supervises the qualifying exams for Music & Musical Sciences, Physical Education, and Art Education programs.

A second helps students who are accepted in SQU, to complete their admission application forms and verifies their certificates and other related documents. A third is responsible for issuing SQU identity cards to the admitted students. A forth double-checks all students' certificates, including non-Omani ones, and prepares the files that will be become the record of their university careers. Finally, another committee allocates on-campus accommodation for female students and provides assistance in arranging off-campus accommodation for male students, a daily free meals facility, and in helping students to open bank accounts to transfer their monthly allowances and other financial benefits, etc.

Dr. Abdullah Al Badi, the Dean of the Deanship of Admissions and Registration, said that online system for the student's admission and the work of the new committee saves time for students seeking admission and improves the efficiency of all the staff involved at SQU.

HE Dr. Ali bin Saud al Bimani, Vice Chancellor of SQU, recently visited China to participate in the World University Presidents’ Forum held at Shenzhen from August 12 to 14. Dr. Ali al Bimani was invited by Hao Ping, Vice Minister of Education, People’s Republic of China, to attend the opening ceremony of this international event as a distinguished guest. 163 university presidents from 68 countries and regions attended the opening ceremony and Chinese Minister of Education Yuan Guiren chaired the event.

The World University President’s Forum was initiated and sponsored by the Chinese Ministry of Education and the Shenzhen Municipal Government. The forum with the theme of the “University’s New Missions and Cultivation of Talents in the 21st Century” provided a platform for participants to exchange education ideas, promote mutual understanding and deepen intercollegiate cooperation among about 170 universities in the world. In order to boost communication and discussion on the common challenges and opportunities faced by world universities, four parallel discussions were held on the forum. They included internationalisation of higher education and cultivation of talents, enhancing the adaptability of the university students for economic and social development, university sports, global horizons and innovation, and construction of green university.
The Global Innovation Index (GII) report prepared by INSEAD, a leading international business school in France, for the year 2011, shows that Oman ranked 57th, lagging behind all other GCC countries. The GII annually examines how countries leverage their enabling environments to stimulate innovation results for industry and economy. GII 2011 ranks 125 countries or economies across the world in terms of their innovation capabilities and results. The GII includes 16 countries from the Middle East and North Africa, of which only two—Israel (14th) and Qatar (26th)—are ranked among the top 30; both high-income countries. The other five high income economies in the region have rather disappointing positions: United Arab Emirates is at 34th place, Bahrain is at 46th, Kuwait at 52nd, Saudi Arabia at 54th, and Oman at 57th. In terms of innovation efficiency, Oman ranked 110th out of 125 countries.

Horizon spoke to Dr. Dhafr Awadh Al Shanfari, Assistant Professor of Entrepreneurship in the Management Department of the College of Commerce and Economics at SQU on Oman’s performance in innovation. According to Dr. Dhafr, the overall innovative or entrepreneurial environment in Oman has to be assessed to diagnose and understand why the country lags in innovation. Issues relating to government regulation, legislation, and macroeconomic condition all the way to the R&D infrastructure, culture, and education need to be addressed. In addition, one cannot separate the concept of innovation from entrepreneurship and new high impact venture creation.

Generally, Oman’s scientific and technology research base is in its infancy. According to the 2009 Global Competitiveness Report, Oman ranked 66 in innovation. More specifically, it was 103 in quality of scientific research institutions, 86 in private sector R&D spending, 86 in industry-research collaboration, and 76 in availability of scientists and engineers. There is a very slow improvement in research and development activity at the national level. The culture of research and development is new to the country, whether it is at the individual, industry, or government level. There are some unorganized efforts scattered around a few universities and very modest research centres across different government agencies like the Ministry of Commerce & Industry and the Ministry of Agriculture.

Dr. Dhafr said that there is almost no technological innovation, whether in academia or industry, in most Arab countries, including Oman. “According to the 2009 Global Competitiveness Report, Oman was ranked 61 out of 128 countries in technological readiness, 68 in internet usage, and 50 in technology absorption by firms. Generally, use of the latest personal technologies is limited to elite citizens in the capital area. Furthermore, a small 2.8 percent of the population has internet connectivity. This can partly explain the almost non-existent e-government or e-commerce activity in the country”, he added. “I think there are few government and nongovernment efforts to develop innovative thinking in the private and government sector. The Research Council, the Industrial Innovation Centre, the Information Authority of Oman and SQU have various programs that aspire to ultimately enhance innovation at the country level. Unless we start from the grassroots level and develop our human capital oriented education system, I doubt we will ever incentivize innovation in the country. Building innovative and entrepreneurial capacity through the education system and higher education institutes is essential in the long run”, he said.

Lack of expertise is a problem that hinders innovation in Oman. “It is clear that Oman has become a government employee society. Since 1970, most of the nationals have focused on obtaining government jobs, with a few exceptions, mostly for families with a history of trade activities. A study points out that 65 percent of senior students at Sultan Qaboos University would prefer to work in the public sector. It is presumed that the relatively low working hours, stable and gratifying salaries, and many other non-financial privileges such as government education scholarships, and perceived guaranteed career advancement opportunities were some of the main reasons for the clustering around public institutions. There has been some change in attitude towards working in the private sector, especially in large companies, as a career option. However, intending or starting a new venture as a career path is still a rare option. This leads us to the issue of finding innovative expertise.

According to the 2009-10 Global Competitiveness report, the biggest barrier to doing business in Oman is an inadequately educated national workforce. It is clearly inadvisable to mandate replacement of skilled workers by those without the skills to do the job. Another major issue is the negative working environment created between Omanis and expatriates. Foreign workers, fearing the loss of their jobs, become uncooperative in training nationals and tension builds this way. With regard to informal training in Oman, the oil industry and, to some degree, the financial and telecommunication sectors, provide the best professional experiential training for Omanis working in the private sector. Otherwise, as mentioned earlier, Oman has a very small and immature private sector.

Dr. Dhafr said: “Obvious weaknesses at all the different levels of the entrepreneurial environment need to be addressed by policy-makers and other key actors. Oman’s entrepreneurship policy objectives need to be focused upon creating a conducive entrepreneurial macro environment for wealth creation through innovation, produced via high impact new venture creation and not, as is currently the case, upon low potential “copycat” ventures. Policy-makers should not spend time and money on encouraging so-called ‘regular’ ventures, but instead, allocate resources and policy focus to those new businesses with future growth potential. Oman needs to follow a holistic entrepreneurship policy approach, such as the more developed countries are now adopting. This entrepreneurship policy has to be carefully customised to integrate all the contextual uniqueness of Oman. Borrowing successful policies from other countries and implementing them blindly is not the right approach. The economic stage of a country, government resources, its people’s culture and value systems, and the overall environment surrounding potential entrepreneurs, all need to be integrated when formulating an entrepreneurship policy. Dr. Dhafr Al Shanfari concluded. 
With a view to raise awareness about Barr al Hikman, a large pristine coastal wetland in the Sultanate of Oman which is a wintering stopover site for migratory birds, the Centre for Environmental Studies & Research (CESAR) at SQU, in collaboration with the Royal Netherlands Institute for Sea Research (NIOZ) is organizing an International Conference on “Oman as a Gravitational Center in the Global Flyway Network of Migratory Shorebirds” from 14 to 16 of November 2011.

Commenting on the importance of the conference theme, Dr. Mushtaque Ahmed, Director of CESAR said: “Worldwide, wetlands are threatened by human activities such as land reclamation projects, industrial pollution, and climate change. At the same time, people become more and more aware of the economical and natural values of wetlands for fisheries and global biodiversity. Consequently, the conservation of wetlands is a timely and important issue. Migratory birds typically travel thousands of kilometers between their (sub)arctic breeding grounds and their tropical or even more southerly located wintering areas. Often migration distances are too large to be covered in one single flight. In such cases, a chain of suitable stopover sites (wetlands) is required to enable the travelling birds to reach their favorable wintering areas. Across the whole globe, different migratory flyways are recognized which represent different chains of sites. Loss of a wetland implies that the flyway has one link less in its series, and it will thus be more difficult, or sometimes impossible, for a migratory bird to complete its annual migrations”.

According to Dr. Ahmed, loss of wetland habitat thus has a large effect on bird populations and can eventually lead to the extinction of migratory bird populations. “Recent research indicates that human activities such as mechanical shellfish dredging and bird hunting in one wetland have negative effects on bird numbers in other wetlands within the same migratory flyway. In return, these losses have direct effects on the biodiversity of these wetlands. For instance, being important predators of benthic organisms, shorebirds often belong to the highest trophic levels of an ecosystem and thereby they may play a positive role in biodiversity maintenance. It is increasingly recognized that losses of predators can have cascading effects on biodiversity in the lower trophic levels, even on the fish community which have a direct economical value. Therefore, knowledge about the global connectivity and community ecology of wetlands are important for conservation management”, he added.

Dr. B.S. Choudri, Senior Researcher, CESAR and Organizing Committee Member of the conference, said that Barr al Hikman in Oman belongs to world’s most undisturbed tropical intertidal ecosystems. “It is an important wintering site for migratory shorebirds within the West Asian - East African Flyway. Barr al Hikman is presumably also important for those shorebirds that winter further south, for example in east and southeast Africa, to make a migratory stopover during spring and autumn, in order to replenish their exhausted energy reserves. Without having a ‘stepping stone’ in the Middle East, these birds can not complete their migrations between their high-arctic breeding grounds and southern wintering areas”, he said.

We estimate that every year at least one million migratory (shore) birds use Barr al Hikman, either to spend the winter or for a migratory stopover in spring/autumn. For 18 shorebird species, the population wintering at Barr al Hikman exceeded more than 1% of their total flyway population. Therefore Oman (and particularly Barr al Hikman) has recorded a higher diversity of wader species in internationally important numbers than any other area within Africa and Western Eurasia. The long-term conservation of Barr al Hikman is obviously an important issue considering the ongoing losses of shorebird habitat in the Middle East”, Dr. Choudri added.

Mr. Jim de Fouw of NIOZ said that the forthcoming conference is aimed at raising awareness about wetlands and to stress their international importance for the world’s biodiversity; communicating scientific information about the global connectivity and community ecology of wetlands; highlighting Barr al Hikman’s unique position within the West Asian – East African migratory flyway and promoting the idea that its international importance should be taken into account when evaluating possible developments of the area. “By holding this international event, we plan to develop a platform to discuss future plans for conservation and sustainable development of important wetlands in Oman; to explore the possibilities of collaboration with other countries within the flyway, and to initiate enhanced involvement of students from the Sultan Qaboos University in future bird migration research”, Jim said.

Apart from CESAR and the Dutch institute, Oman Ministry of Environment & Climate Affairs, Shell Development Oman and the Centre for Field Research on Environment, Diwan of Royal Court Oman are also among the organizers and sponsors of the conference.
HE Dr. Ali bin Saud al Bimani, Vice Chancellor of SQU, recently received in his office, HE Dr. Rukara Mohammed, Advisor to the President of the Republic of Burundi. They discussed aspects of cooperation between SQU and Peace and Tolerance University in the Republic of Burundi in terms of research collaboration and exchange of faculty members, students and exchange of experiences.

During the discussion, Dr. Al Bimani emphasised the importance of cooperation and communication among universities in different countries, in order to take advantage of various educational experiences in the world. He also elaborated on the progress that SQU has made in terms of internationalization. A video documentary on SQU was also screened for the Burundi delegation.

The Quality Assurance Office at SQU recently organized a seminar on staff induction and mentoring policies for the senior academic and administrative staff of the university. The seminar was delivered by Prof. Prof. Mothana Al-Kubaisi, Consultant at the Quality Assurance Office.

Welcoming the participants, Prof. Adel Gastli, Director of the Quality Assurance Office, said that the idea of the seminar is to introduce and present drafts of two very important policies concerning the induction and mentoring programs for all new staff and employees at the university. “The Quality Assurance Office has established these two policies within the framework of its strategic planning in order to assure and continuously enhance quality at the university and at the same time prepared the university for accreditation by the Oman Authority for Academic Accreditation which is expected to occur during late 2012 or early 2013”, he said. He also mentioned that the Quality Assurance Office has been also helping in developing several other policies which have direct impact on Quality and will assure continuous quality enhancement at SQU.

The presentation by Prof. Mothana Al-Kubaisi helped the participants to develop a common understanding about SQU staff induction & mentoring policies; clearly communicate to staff SQU staff induction and mentoring policies; and implement the policies in a consistent manner. “The main objectives of these policies”, he said, “are to enrich the university by further enabling staff through outlining roles and responsibilities and expectations; providing staff with early support on developmental needs; to further make staff feel welcomed and valued in their new environment or role; and to enhance quality culture in the organization”.

Prof. Adel Gastli said that these two policies are now implemented for a trial period of 7 months. At the end of this trial period and after receiving comments and feedback from all colleges, the two policies will be forwarded to the University Curriculum and Academic Policies Committee for revision, update and then submission to the Academic Council at the end of the Spring 2012 Semester for final approval.

Sultan Qaboos University recently organised a welcoming function under the patronage of HE Dr. Ali bin Saud al Bimani, the Vice Chancellor, to receive 185 new Omani employees who joined the university and SQU Hospital.

SQU embarked on this mass recruitment drive out of its commitment to provide jobs to the citizens. The new employees, consisting of administrative and technical personnel were accommodated in different administrative units, colleges and centres of the university. 166 employees were deployed in different administrative units, centres and colleges whereas 19 employees were absorbed by the university hospital.

A video on Sultan Qaboos University was screened during the welcoming ceremony. This was followed by the Personnel Affairs Department assigning personnel from different departments, administrative units, colleges and centres, the task of welcoming the new employees their respective offices.
Do you exercise regularly? Hafedh al Mahrouqi, an employee of the Agricultural Experimental Station at SQU has fully realised the benefits of regular exercise and he is a crusader for this cause. A few months ago, in 2010, he embarked upon a campaign, “An hour from 24 hours” which calls upon the people of Oman to make at least one hour of exercise a part of their day. Looking at the current status of regular physical exercising among the people of Oman, Hafedh feels that it is certainly marginalized, especially among the younger generation. This would definitely affect their health, overall growth, performance at work place and even attitude towards life.

Hafedh says that daily one hour of exercise is beneficial to one's health, job and family. Many people cite family commitments as a barrier to involve in regular physical activity for which Hafedh has clear cut answer: “A healthy adult sleeps 8 hours a day, works 8 hours and the remaining 8 hours is there. From the 8 hours balance, one can utilise just one hour for doing exercise. He believes that the response that “I don’t have time to do regular exercise” is a lame excuse. Regular exercise is a productive investment to the benefits of which will last until the end of one’s life”. Hafedh is of the opinion that it is the duty of the parents to guide their children to a life pattern in which exercise is given its due share. Parents have the tendency of discouraging children from physical activities such as playing football, cycling or any other sport wrongly claiming that these would make them tired or affect their academic performance.

In Oman diabetes is common. One of the reasons for this disease is sedentary life style. There many other diseases common in the country which can be averted if the people show genuine seriousness in making exercise part of their life. Hafedh further says that if the people of Oman give due importance to exercise, it could prove beneficial to the national exchequer of the Sultanate which spends a significant part of its revenue on healthcare.

Considering that a young man takes up employment at the age of 23 years. By the time one reaches 35 years, he/she would gain ample expertise and experience in his field of profession. If the person is not in the habit of doing quality workouts on a regular basis, by all probability, he/she is likely to develop life style diseases such as diabetes, cardiovascular diseases, hypertension at 45 or even earlier. Hafedh says: “If the annual medical leave exceeds beyond normal limits, the employer may consider terminating the employee from service.

“This is why I believe that exercise is beneficial for your performance at work. In order to excel at work, one has to take care of his health as well”. Hafedh is of the view that many Omani stop exercising after they get married and children are born. “In fact, it is the duty of the parents to push their children to go to the playground or gym every day rather than sending them to play stations attached to shopping malls. Regularly playing video games and browsing internet for hours on end may damage the health and well being of children. I know many parents who prefer to take their wards to play stations and internet parlours instead of motivating them into exercise. Brushing aside the ‘boredom’ associated with regular exercise, many expats living in Oman earmark one hour a day for it. This is because they realise the importance of the health benefits of regular workouts. When it comes to Omanis, though they love games like football, they refrain from them “due to lack of time”, he observes.

As part of ‘An hour from 24 hours’ campaign Hafedh successfully completed a biking tour from Kuwait to Muscat that lasted for 17 days from November 29 to December 14, 2010. During his campaign he covered 1640 kilometres on his cycle covering all the GCC countries, distributing pamphlets and creating awareness on the benefits of regular exercise. Recently, Hafedh stayed two months in Czech Republic as part of a training course. What fascinated him in this European nation were its biking tradition and the bicycle lines that decorate the streets, with riders concentrating on serious exercise, recreation, and cheap environmentally sound transportation.

Hafedh adds: “Every child in Oman would ask for two things in his childhood: a bicycle and a football. The disappointing thing is that we consider them nothing more than childhood relics. With fossil fuel stocks dwindling, fuel prices climbing and environmental pollution becoming a major threat across the world and Omanis becoming increasingly overweight and out of shape, now might be the time to follow the European example”.

On asking about the benefits of bicycling, Hafedh becomes more loquacious. Bicycling offers efficient, low-impact exercise. Intensive bicycle workouts can be just as effective as running, without a knee pain. Regular bicying of any kind will make you more fit, even if you are just riding to and from work. Just half an hour a day on a bike can cut your risk of heart disease in half. It can also lower blood pressure and reduce your risk of developing adult-onset diabetes. Reminisce the Tour to Oman biking campaign, Hafedh says: “a bicycle will get you to work and back inexpensively. A biking excursion in the country during winter will be good fun for the children and improve your level of fitness”.

By M.K. Santhosh
Horizon: How did you view the conference?
Prof. Richard: I feel specially privileged to be a part of this pioneering event in Oman because when such an initial event was held in the United States, and I saw what good things it can lead to. It creates an environment in which parents of children with disabilities can communicate. It also helps boost the level of their understanding of medical treatment options and opportunities and everyday problems associated with raising children with special needs. This conference is an attempt to make the governments and authorities more alert to helping families of children with disabilities. Thus, this first conference is critical and important.

Horizon: How did you develop research interest in Autism?
Prof. Deth: Well, I am interested in the neurochemistry of ‘attention’. When I investigated the process of attention, it became clear that some of the factors that began to be described about autism overlapped with my interest in attention. The attention deficit hyperactivity disorder (ADHD) appears therefore to be related to autism in some neurochemical way. Therefore, it was really an extension of my basic interest in neurochemistry of attention and brain function. However, I should also say that I have a niece who developed a mental disorder, and her condition was naturally of interest to me. Her parents thought that her condition was due to some of the vaccines administered to her, but I was initially skeptical about this assumption. Thus the condition of this family member increased my own interest in autism and its possible connection to vaccination.

Horizon: You talked in your research about neurotoxic metals. Do they play a role in vaccines?
Prof. Deth: Yes; there are many neurotoxic metals, and two of them, aluminum and mercury, are incorporated into vaccines.

Horizon: Do you think that there will be a substitute for these metals in the future?
Prof. Deth: This is a good question. The best vaccine would be one without metals, since the later are simply not good. Thus, some researchers are interested in replacing the function of aluminum in vaccines by other molecules which are neither as harmful nor as neurotoxic as aluminum. Knowing what aluminum does is essential in order to replace it with a proper substitute. Consequently, a better vaccine can be produced.

Horizon: As a matter of fact, the number of autistic children is increasing, especially in the Gulf region. What are your recommendations regarding this?
Prof. Deth: If I was in the government of Oman, and I was in the health department, I would be sure to offer vaccines for the Omani people which contain no mercury. Regarding vaccinations, vaccines should not be given all at once. Sometimes, if a vaccine is missed, doctors tend to give the missed one together with the immediate next and this may cause further complications. When it comes to nutrition, the research done by Dr. Mostafa Waly and Dr. Yahya al Farsi of SQU, proves that autism in Oman is associated with a nutritional deficit, and this could be addressed. Ensuring adequate intake of Vitamin B-12 and Folic Acid is another suggestion that could be implemented.