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Perspectives and Strategies towards Collaboration in Higher Education in the GCC Arab States of the Gulf

Siran MUKERJI, & Nader K. JAMMEL
Arab Open University, Kingdom of Saudi Arabia
siranmukerji@gmail.com

ABSTRACT :

Higher Education with international quality parameters has been one of the most important and challenging aspects of discussion for policy makers in the field of higher education in the Gulf Cooperation Council (GCC) Arab States of the Gulf. As evident, there are 62 universities in the GCC countries, with highest number of 21 in the Kingdom of Saudi Arabia, followed by 15 in the United Arab Emiirates, and so on with then 4 in Qatar. Hence the GCC countries together present an excellent opportunity for growth and development in higher education. Besides, this region also provides an excellent platform for area specific development of educational programmes and strategic partnership with international agencies involved in quality assurance in higher education. Looking at the need of the future generation and enormous potential for growth in economy, it is essential that an analytical study of universities of the GCC countries should be undertaken so that a networked collaborative framework could be developed amongst these countries for making this region a centre of excellence in higher education. In the light of this need for conducting an analysis of the higher education in this region, the present paper identifies the following objectives ; (a) to examine the potential of universities in the GCC countries on the various parameters of academic excellence, (b) to identify those spheres of higher education where the possibility of growth and development is still untapped with the help of SWOC Analysis, and (c) to design and develop a strategic partnership framework for the GCC universities for developing this region into a centre of excellence in higher education in the world.

1. INTRODUCTION :

Education has been one of the most important dimensions of development for all the countries in view of its contribution towards national economic and social growth and development. Universalisation of education has been a focus in a number of conferences around the globe such as the World Conference on Education for All held in Thailand in 1990, in which governments pledged to achieve Education for All by the year 2000. Subsequently the progress was reviewed in 1996 in Jordan. This was followed by the World Education Forum held in Senegal in 2000, in which the Dakar Framework for Action was developed which had set educational goals for the international community.

According to this framework, education was identified as a human right and endured commitment towards education for all from different countries. This paved the way for formulation of Millennium Development Goals (MDGs) which was passed by the UN General Assembly in a special session in fall 2000. This further strengthened the commitment of all the countries towards education for all. As a part of MDGs, education was one of the indicators for which specific time-bound goals were formulated. Apart from the goal of

achieving universal primary education, it focused on tertiary education and gender equality and empowerment of women through tertiary education preferably by 2005 and latest by 2015.

As a part of the commitment towards development through education and fulfillment of the international goals, the GCC countries have been focusing on a comprehensive formulation of educational planning through a number of resolutions commencing with the deliberations of the 7th session of the Supreme Council in Muscat in December 1985 to that of 24th session in Kuwait in December 2003. These resolutions have been emphasizing education, and its importance in these countries. As is evident, education has continued to be one of the key issues of concern for GCC since its inception. The Charter of the Council, the Economic Agreement and the Strategy of Comprehensive Development have focused on education which shows the importance accorded to education by the Council. Having very well realized the challenges faced by these countries towards extending higher education to all segments of the society, these countries have initiated concrete measures in this direction by establishing a number of universities, providing various kinds of higher educational programmes, collaborating with international educational institutions of repute and conducting continuous assessment of progress in this direction. What follows is an illustration of the present scenario of higher education in this region.

2. METHODS :

Over the years, GCC countries have witnessed tremendous growth in the education sector especially in higher education. In this section, we will analyze the potential of higher education in GCC countries on various dimensions affecting the growth and development of higher education. These dimensions chosen for this purpose are: Adult and Youth Literacy, Infrastructure set up for provision of higher education such as universities network in each of the GCC countries, and availability of trained and qualified human resources. The dimensions also include enrollment strength in the various universities and international mobility of the students (i.e. how many students were sent abroad for higher education, and how many foreign students joined the universities of the GCC countries), and quality education streams. These dimensions will help us to build a composite analysis of higher education and subsequently will help us in assessing the strengths and weaknesses of the higher education system for collaboration amongst universities and higher education institutions in GCC.

2.1 Higher Education : The Present Scenario :

The first dimension selected for analysis of higher education is adult and youth literacy. The dimension was selected because it gives us a possible potential figure of the number of persons who will take up higher education in the coming years. The data presented below in Tables 1a and 1b are drawn from the Global Education Digest 2006 – Comparing Educational Statistics across the World, UIS, and show interesting revelations.

From these Tables 1a and 1b, it is evident (although there were no data for UAE) that the literacy rates in adults and in youths seem to be impressive in almost all the countries, the highest being 93% in Kuwait. Similarly the overall male and female literacy rate is also highest in Kuwait followed by Qatar, Bahrain, Oman, and Saudi Arabia. In illiterate population, again Qatar shows an impressive figure with the least percentage of women as illiterate (29%), while the highest percentage of adult women illiterate is found as 65% in Saudi Arabia. If we look at the Gender Parity Index (ratio of female to male) (GPI) then Qatar has a GPI of 0.99 showing very close male –female parity in adult literacy.

The trend in youth literacy (i.e. literacy in the age group of 15 and 24 years) remains similar to that in adults. Again Kuwait has 100% literacy rate both in male and female categories, consequently the GPI is one.

Table 1a : Adult (15 yrs and over) Literacy Rates

GCC Country	% Literacy Rate				Illiterate Population	
	Overall	Male	Female	GPI	Total	% Female
Bahrain	87	89	84	0.94	66,385	49
Kuwait	93	94	91	0.96	138,641	49
Oman	81	87	74	0.85	300,192	57
Qatar	89	89	89	0.99	66,686	29
Saudi Arabia	79	87	69	0.80	2,680,976	65
UAE	nd	nd	nd	nd	nd	nd

GPI : Gender Parity Index, the ration of females to males

Table 1b : Youth (15-24 yrs) Literacy Rates

GCC Country	% Literacy Rate				Illiterate Population	
	Overall	Male	Female	GPI	Total	% Female
Bahrain	97	97	97	1.00	3,359	43
Kuwait	100	100	100	1.00	1,094	38
Oman	97	98	97	0.99	14,346	59
Qatar	96	95	98	1.03	4,373	24
Saudi Arabia	96	98	94	0.96	157,422	75
UAE	nd	nd	nd	nd	nd	nd

GPI : Gender Parity Index, the ration of females to males

Another country having the same GPI level i.e. one, is Bahrain where the youth literacy rate is 97% in both the genders. Qatar shows a GPI of more than one i.e. 1.03 having higher female literacy as compared to male.

2.2 Infrastructure Setup :

The second dimension taken for analysis of higher education is the Infrastructure Setup in the GCC countries. This dimension will be studied on two important factors i.e. educational institutions, and teaching staff. A good number of higher education institutions with quality teaching staff prepare the ground for quality in higher education. Let us first look at the university infrastructure in the GCC countries which is presented in Table 2 below.

The numbers summarized in Table 2 are drawn from the GCC Secretariat General Information Center-Statistical Department, Statistical Bulletin Volume Fifteen 2006, and from the information on the various government websites of the GCC countries (Details are given in the list of references). These numbers show an impressive growth in university infrastructure over a period of time with a total of 37 universities in the year 2001-02 increasing to 62 in 2007. The latest data on the number of universities gathered on searching the relevant websites of the GCC countries. The growth rate in a number of universities is 5.4% in 2002-03, followed by 12.82% in the next year, and a current growth rate is shown as 41%. If the number of universities is taken as a parameter for expansion of higher education

Table 2 : Number of Universities in GCC Countries by Year

GCC Country	2001-02	2002-03	2003-04	2007 Current
Bahrain	8	9	10	10
Kuwait	6	6	6	6
Oman	4	4	4	5
Qatar	3	4	5	5
Saudi Arabia	8	8	11	21
UAE	8	8	8	15
Overall	37	39	44	62

infrastructure in these countries then Saudi Arabia takes the lead with the maximum number of universities followed by the UAE with 15 universities. An interesting finding is that over the years, private and foreign universities in collaboration with local institutions have played vital roles in the expansion of this infrastructure.

Apart from these regular universities, there are a number of colleges and specialized institutes offering specific nature and kind of professional degrees and diplomas to the youth population of these countries.

The data pertaining to human resources availability in the universities are presented in Table 3. Looking at the availability of human resources, across the GCC countries, the staff availability in the universities has been increasing consistently over the years along with the growth in the number of the universities. While we have composite data on male and female teachers and their citizenship for three countries namely Bahrain, Kuwait and Qatar, the data on male and female staff combined only are available for Saudi Arabia and UAE, and data for Oman are only the total numbers of university staff. The countries having a higher number of universities also have a higher number of university staff catering to the educational needs of the society.

Table 3 : Number of University Staff by Gender and by Citizenship

GCC Country	2001 - 02		2002 – 03		2003 - 04	
	Male	Female	Male	Female	Male	Female
	C / non-C	C / non-C	C / non-C	C / non-C	C / non-C	C / non-C
Bahrain	241 / 154	217 / 84	245 / 173	267 / 117	240 / 164	367 / 137
Kuwait	492 / 394	166 / 21	529 / 429	248 / 62	560 / 386	193 / 17
Oman	1474		1490		946	
Qatar	153 / 294	148 / 62	149 / 295	142 / 59	154 / 310	151 / 61
Saudi Arabia	13,403	8,515	14,213	9,146	16,794	8,403
UAE	190	2,226	232	2,716	nd	nd

C / non-C : Citizens / non-Citizens

Source : GCC Secretariat General Information Center-Statistical Department, Statistical Bulletin v15, 2006

2.3 Student Enrollment in Universities :

One of the most significant aspects evident from the higher education data is the continuous increase in the student enrollment in the universities over the years showing enhanced awareness amongst the youth towards taking up higher education and contributing towards development of the country. What is even more worthwhile noting here is the higher enrollment of female segment of the population as compared to the male segment. This indicates greater participation of women in the higher education of the countries. As is evident, Saudi Arabia and UAE again have high enrollment in universities both of male and female categories.

Table 4 : Student Enrollment in Universities by Gender and by Citizenship

GCC Country	2001 - 02		2002 – 03		2003 - 04	
	Male	Female	Male	Female	Male	Female
	C / non-C	C / non-C	C / non-C	C / non-C	C / non-C	C / non-C
Bahrain	5,417	8,770	8,744	13,347	10,867	15,273
Kuwait	4632 / 579	10973/1027	4711 / 613	11435/1069	4848 / 616	11714/1125
Oman	9411 / 25	10455 / 42	9477/11435	10844 / 43	10001 / 45	10892 / 47
Qatar	1210 / 442	4786 / 899	1584 / 659	4925 / 977	1452 / 678	4702 / 1035
Saudi Arabia	196,519	248,281	219,356	305,988	236,996	334,817
UAE	21,751	42,103	22,550	44,543	13939/10871	29767/15164

C / non-C : Citizens / non-Citizens

Source : GCC Secretariat General Information Center-Statistical Department, Statistical Bulletin v15, 2006

Having focused on the general enrollment trend in the universities, what follows here is specific attention to the tertiary education level in the GCC countries. This is based on the International Standard Classification of Education (ISCED 97). According to this system of classification of educational levels, the first stage of tertiary education comes under Level 5. This level is divided into two sub-categories i.e. 5A and 5B. The ISCED 5A programmes are largely theoretically based and are intended to provide sufficient qualification for gaining entry into advance research programmes and professions with high skill requirement. The following are the classification criteria for ISCED 5A programmes ; minimum cumulative theoretical duration of three years ; faculty having advance research credentials ; involving research project or thesis and this level provided the level of education required for entry into a profession with high skills requirement or an advance research programme.

Similarly the ISCED 5B programmes are generally more practical, technical, and occupationally specific than 5A programmes. The classification criteria of these programmes are ; they are more practically oriented and occupationally specific than the programmes of a 5A level, and do not prepare students for direct access to advance research programmes ; having minimum two years' duration and programme content is typically designed to prepare students to meet a particular occupation.

The second stage of tertiary education is the ISCED 6 level which leads to an advanced research qualification. These programmes are devoted to advanced study and original research. The programmes require submission of a thesis or dissertation which is a product of original research and also a contribution of specific

Table 5 : Number of Students at ISCED Levels 5 & 6, Teachers, and Graduated Students

GCC Country	Students	% Female	Teachers	% Female	Graduates	% Female
Bahrain	18,524	63	832	36	2,555	70
Kuwait	42,076	71	1,643	23	nd	nd
Oman	33,807	56	1,144	25	5,059	62
Qatar	8,648	67	737	31	1,386	73
Saudi Arabia	573,732	59	25,041	34	81,686	53
UAE	68,182	66	2,948	nd	nd	nd

Data for 2004, from Global Education Digest 2006: Comparing Educational Statistics across the World, UIS

knowledge. These programmes are not solely based on course work rather it prepares participants for faculty posts in institutions offering five-year level programmes as well as for research posts in government and industry.

The data in Table 5 are a summary on the number of students enrolled during 2004, the number of teaching staff at levels 5 & 6, and the number of graduates from levels 5 & 6, in the GCC countries. As evident from Table 5, the maximum enrollment in tertiary education is seen in Saudi Arabia followed by UAE, Kuwait, Oman, Bahrain, and Qatar. If we compare the enrollment numbers with the numbers of universities in the GCC countries in 2003-04, then we find that the student-university ratio is highest in Saudi Arabia (52157.45), followed by UAE (8522.75), Oman (8451.75), Kuwait (7012.67), Bahrain (1852.40), and Qatar (1729.60), while the overall GCC ratio stands as 16931.11. Another aspect of the analysis is the student-teacher ratio. The student-teacher ratio for Qatar is 11.73 i.e. for every 12 students there is one teacher. The ratio for Oman is 29.55, for UAE is 23.13, and for Kuwait is 25.61.

Table 6 then shows the number of graduated students according to their field of study, which shows some interesting trends (but with some limitations because relevant data for UAE and Kuwait are not available). In all of the GCC countries more

Table 6 : Number of Graduated Students according to Field of Study

GCC Country	Number of Graduates (and % Female)					
	Science and Technology	Education	Humanities and the Arts	Social Sc, Business, and Law	Health and Welfare	GPI
Bahrain	19 (50%)	12 (79%)	7 (85%)	41 (69%)	12 (84%)	1.84
Kuwait	nd	nd	nd	nd	nd	2.72
Oman	12 (38%)	68 (72%)	3 (41%)	13 (37%)	1 (60%)	1.37
Qatar	16 (47%)	32 (90%)	10 (92%)	38 (62%)	4 (100%)	3.05
Saudi Arabia	9 (39%)	41 (78%)	28 (29%)	15 (39%)	6 (44%)	1.50
UAE	nd	nd	nd	nd	nd	3.24

Data for 2004, from Global Education Digest 2006: Comparing Educational Statistics across the World, UIS

than half of the graduating students are female. The percentage of graduates from Social Science, Business, and Law (combined) was highest in Bahrain (41%), while in Oman the largest proportion was from Education (68%). Qatar has similar numbers as Bahrain (38%) in Social Science, Business, and Law, while in Saudi Arabia the largest proportion was from Education. If we look at the trend of female graduates in the GCC countries, we find that the performance of female students is far more impressive than their male counterparts. In Bahrain, in all the disciplines female graduates have a share of more than or equal to 50%, while in Oman it ranges from 37% to 60%. The analysis of Qatar shows the range of female graduates from 47% to 100% in different disciplines, while in Saudi Arabia, the range is from 29% to 78%. The gender parity index (GPI) for graduates from ISCED levels 5 & 6 shows that in all the GCC countries, the GPI is more than one. This shows that female students are surpassing their male counterparts and showing a clear trend towards women emancipation and empowerment.

2.4 International Mobility of Students :

Another dimension of higher education taken up for the analysis is international mobility of the students in GCC countries. International mobility of students is studied in terms of inbound mobile students (i.e. foreign students coming to the country for study) and outbound mobile students (native students going out of the country for study). These data are shown in Table 7. However we cannot make a complete and detailed analysis, and a clear picture cannot emerge from the analysis because data for UAE, Oman and Kuwait are not available for inbound mobile students. Bahrain is the only country having more outbound mobile students as compared to inbound mobile students. Hence, the net flow in the case of Bahrain is negative. The highest positive net flow is of 288 students is observed in Saudi Arabia, which shows it has the potential to attract students for higher education. Similar data are found for Qatar. The highest outbound mobility ratio is 12.8 for Qatar, and the least is 1.6 for Saudi Arabia. UAE has also a good potential for retaining their native students for higher education in their country.

Table 7 : International Mobility of Students

GCC Country	Outbound		Inbound	Net Inbound
	Total	Ratio	Total	
Bahrain	2,108	11.4%	1,331	- 777
Kuwait	4,959	11.8%	nd	nd
Oman	4,283	12.7%	nd	nd
Qatar	1,105	12.8%	1,633	528
Saudi Arabia	9,318	1.6%	12,199	2,881
UAE	4,384	6.4%	nd	nd

Data for 2004, from Global Education Digest 2006: Comparing Educational Statistics across the World, UIS

Table 8 : Qualities of the Education System (and Rank in the World)

GCC Country	Secondary Schools Enrollment Rate (rank)	Tertiary Schools Enrollment Rate (rank)	Quality of Education System	Quality of Maths & Science Education	Quality of Business Schools	Local Availability of Specialised Research & Training Services
Bahrain	98.8% (27)	34% (56)	3.2 (80)	3.4 (89)	3.7 (78)	3.1 (97)
Kuwait	89.9% (52)	22% (73)	3.5 (63)	4.1 (62)	4.2 (60)	4 (54)
Oman	86.4% (62)	13% (91)	4.2 (38)	4.3 (59)	4.2 (63)	4.3 (43)
Qatar	96.8% (34)	19% (77)	4.9 (20)	4.7 (38)	4.6 (40)	3.9 (58)
Saudi Arabia	nd	nd	nd	nd	nd	nd
UAE	66.4% (90)	22% (73)	4.4 (32)	4.5 (41)	4.4 (52)	4.3 (42)

Data for 2004, from Global Education Digest 2006: Comparing Educational Statistics across the World, UIS and Arab World Competitiveness Report 2007

2.5 Quality of Education Streams :

The analysis of another parameter of higher education portrays yet another picture. The ranking of the quality of the education systems is shown in Table 8. The data reveal that the position of Qatar is ranked at 20, followed by UAE at the rank of 32. Ranking is similar also in case of quality of mathematics and science education and that of business schools in these countries. However, there is a different portrait with respect to availability of specialized research and training services in these nations. The data also reveal that UAE followed by Oman has better locally available specialized opportunities for research and training.

Having analyzed and presented the data pertaining to present higher education setup in GCC countries, an attempt is now being made here to make an internal as well as external analysis of the various factors influencing this setup. In this connection, Strength Weaknesses Opportunity and Challenges (SWOC) analysis technique is being utilized for determining the internal important factors affecting the higher education. This would help in determining the emerging challenges faced by higher education scenario in GCC countries.

3. RESULTS - SWOC ANALYSIS :

3.1 Strengths :

- Existence of rich teaching resources in the Arabian world.
- Favourable government policy towards establishment of institutions of higher learning in private sector.
- Existence of positive government framework for encouraging renowned foreign universities to set up their institutions in collaboration with local agencies or foundations. As for instance, Texas A& M University and CHM University, Carnegie Mellon Campus in Qatar, American University of Sharjah and American University of Dubai, British University of Dubai in UAE, AMA International University in Bahrain, American University of Kuwait, etc.
- Creation of Special Education Zone (SEZ) in GCC countries promoting higher education specially of professional nature in the country such as Knowledge Village in UAE and Knowledge City in Qatar.
- Existence of needs-based and employment-centered programmes and

institutions such as Medical University of Bahrain, King Fahd University for Petroleum and Minerals, King Saud bin Abdul Aziz University for Health Sciences in Saudi Arabia, Gulf University for Science and Technology in Kuwait, Ajman University of Science and Technology in UAE, etc.

- International accredited educational programmes in the field of health and medical science, engineering and technology, computer science and information technology, business studies and law, public administration, pure science, and allied social science such as anthropology, psychology, etc.
- Attractive salary and service benefits for teaching and research professionals in the region.

3.2 Weaknesses :

- Reliance on non-citizen expertise for teaching in specialized and professional courses.
- Limited professional courses for enhancing job opportunity for women.
- Need for long term planning for integrative and networked educational development.
- Perceived gap between need of the job market and educational output.

3.3 Opportunities :

- Need for development of an integrated and networked university in GCC countries that would offer region based, employment centered academic and professional programmes for GCC nationals exclusively.
- Exchange of faculty, expertise and teaching resources and students amongst the universities of GCC countries.
- Development of comprehensive training programmes for teachers and researchers uniformly in all the GCC countries.
- Greater and wider implementation of ICT in making educational resources available to students across the region.
- Considering the large number of students at the primary and secondary level institutions, there is a need to establish more number of quality higher educational institutions so as to give greater opportunities to both male and female students.
- In view of the rising awareness amongst women towards attaining higher education and also greater support provided to them by the society in providing them education and empowering them, educational institutions with job oriented programmes specifically for women need to be set up.
- Increasing demand for expansion in higher educational institutions.
- Establishment of educational institutions in public-private partnership through international collaboration.

3.4 Challenges :

- Self sufficiency in developing qualitative human leadership : (a) Professionalization in not only teaching personnel but also in educational leaders such as supervisors, principals, educational advisors, laboratory and workshop technicians, librarians and their counter parts in university education setup. (b) Adoption of licensing system for teaching profession. (c) Need for comprehensive and integrative teacher training and development programme. (d) Training and development for senior educational administrators including university faculties for strategic thinking, planning and administration.
- Organizational challenges : (a) Linking of teaching function with scientific research and development. (b) The development of a procedural system for supervision, evaluation and accountability, and a comprehensive assessment system of educational performance.
- Financial challenges : Finding other financial alternatives that can assist the government in the expansion of

educational institution and fulfilling the requirement of education system development.

- Efficiency and effectiveness of educational outputs : (a) Developing science, mathematics, and other employment centered academic programmes such as IT, bio-technology, bio-chemistry, agriculture science, business studies, etc so that employability of academic programmes could be improved. (b) Devising attractive and employable academic programmes at tertiary level for non-math and non-science background pass outs at secondary or senior secondary level. (c) Bridging the gap between quality of higher education output and need of the job market. (d) International quality standards in education system so that out bound mobility rate of students could be minimized. Simultaneously make the educational set up much more attractive for enhancing the in bound mobility of the students to the GCC countries. (e) Design and development of modular programmes in English language which can cater to the needs of the students belonging to non-English background. This should be able to bring these students to a certain level of language competency and general awareness

4. CONCLUSIONS :

After analyzing the strengths, weaknesses, opportunities and challenges for higher education in the GCC region, now we look at the conclusion of this analysis of higher education in the region, concerning the overall education sector attractiveness of the GCC countries.

The conclusions of the education sector attractiveness require making a study of all the activities within the sector, beginning with program design and ending with program delivery. Based on Michael Porter's Five Forces of Competition Framework, five forces can be identified in the higher education system in GCC and these forces are ;-

F1 : Threat of new entrants i.e. new private and public higher education institutions.

F2 : Bargaining power of buyer i.e. bargaining power or Mobility of students to other institutions or mode of learning.

F3 : Threat of substitutes i.e. threat of substitutes like new programmes through alternative mode of delivery.

F4 : Bargaining power of Supplier i.e. bargaining power of supplier of books, learning material, tools, equipments, etc.

F5 : Degree of rivalry between existing competitors i.e. degree of competition amongst institutions of higher learning in the domain of higher education.

This framework can be better understood with the help of following Figure 1 below. The above analysis and identification of five forces in the higher education system gives an idea of the relative positions of the higher education setup of GCC countries amongst those of other nations, and also it helps to identify the possible forces affecting the setup. Based on this analysis, one can forecast the position of the education sector in the future and devise strategies to improve and revolutionize the sector. The formulation of adequate strategies would render competitive advantage to the sector, and thus help to transform the GCC region into a center or region of excellence in higher education in the world. Besides, the above analysis could also assist in identifying potential specialization areas of higher education and framing an adequate plan of action for design and delivery of programmes in untapped areas.

Such a comprehensive and collaborative analysis of higher education sector would help the countries of this region to further expand and improve the educational infrastructure and extend these facilities to all the people irrespective of their location, background, and social status. Finally, it can be said that as a part of the GCC mandate and commitment of the member

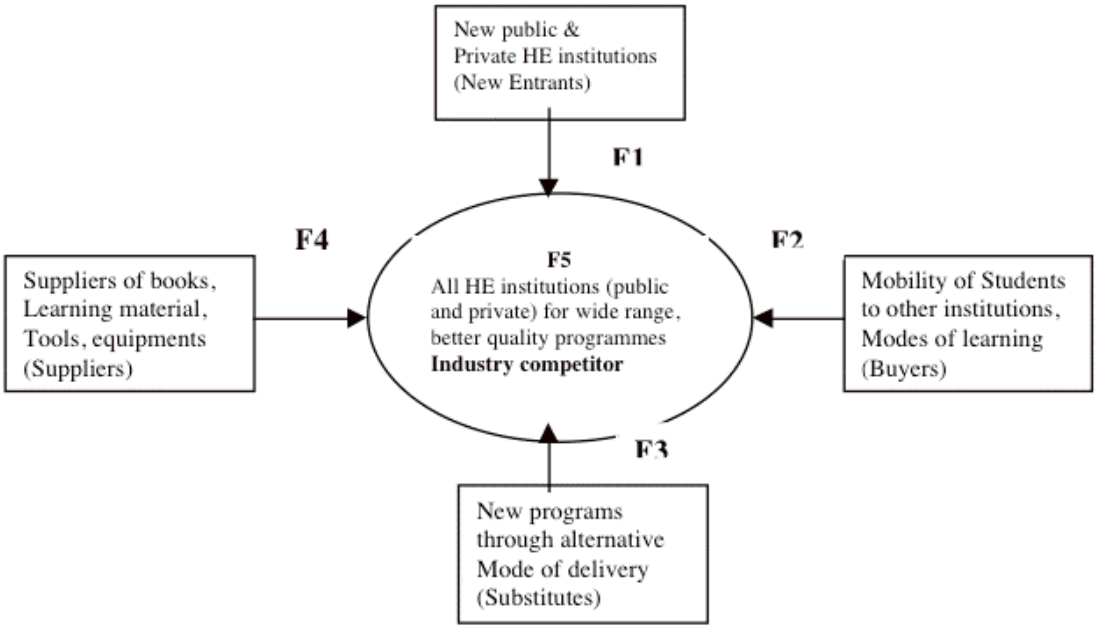

Figure 1 : The Five Forces Model of Higher Education in the GCC Countries

countries towards universalization and provision of quality higher education, it is the need of this decade to provide an adequate platform to the youth for attaining and upgrading their levels of knowledge and competency. This should be available to all concerned, belonging to all walks of life in order to bring a developmental parity amongst all the member nations. The time has come for all of us to understand and realize that a knowledge society is indeed a developed and enlightened society in this 21st century.

REFERENCES :

GCC Secretariat (2002). *Comprehensive Development of Education in GCC Countries: A Study of the Directives Stated in the Supreme Council Resolution*, 23rd Session, GCC.

GCC Secretariat (2006). *Statistical Bulletin v15*. General Information Center-Statistical Department.

Global Education Digest (2006). *Comparing Educational Statistics across the World*, UIS.

UNESCO Institute of Statistics (2003-2004). *Annual Report*. Montreal : UNESCO.

World Economic Forum (2007). *Arab World Competitiveness Report.*

Siran MUKERJI siranmukerji@gmail.com and Nader K. JAMMEL nader@arabou.org.sa are at the Department of Business Administration, Arab Open University, Riyadh Branch, Kingdom of Saudi Arabia.