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## **Trends, Gaps and Alignments in Professional Education in the United Arab Emirates – Implications for Strategic Growth**

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# Trends, Gaps and Alignments in Professional Education in the United Arab Emirates – Implications for Strategic Growth

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## Abstract

This is an exploratory study that seeks to identify the trends in professional education and labour market demands and point out the whether these synchronize with the objectives of the strategic plan of Dubai. The study is based on a survey of programs of accredited universities in the UAE and uses labour market trends published by the Government of Dubai in its Statistical yearbook for 2005. The study makes a pioneering attempt at reviewing the professional courses and has important implications for universities and colleges in development of courses to meet the demand of the labour market.

**Keywords:** *Professional degrees, career development, employment, sustainable development.*

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## 1. Introduction

The Strategic plan (2015) for Dubai which takes Dubai into the next stage of growth and development was launched by his Highness Shaikh Mohammad bin Rashid Al Maktoum with the words, "Give me knowledge and intelligence, I'll give you glory and pride". The plan underscores the importance of education and educational institutions for the future development of manpower to meet the future challenges. The plan proposed an ambitious target of GDP growth to US \$108 billion by 2015. This entails diversification of the economy, a reduction of the vulnerability to external shocks and a systematic integration into the regional and global economy. To achieve the targeted economic growth it is estimated that 882,000 additional workers are required to join the workforce by 2015, bringing the total employment to 1.7 million with significant move towards higher skilled employment.

## 2. Background

Dubai's economic growth since 2000 has been impressive. The real GDP grew at a compound annual growth rate of 13%, much higher than other G.C.C. countries.

The economic growth of Dubai was also much higher than the emerging East Asian economies of China and India and also higher than the developed economies of Ireland, Singapore and the U.S.A. Dubai has a per capita GDP of \$31,140 in 2005 with an annual average growth rate exceeding 6% over the 2000-2005 periods. Dubai's per capita income today compares very favorably with that of many developed countries such as Singapore US\$26, 836 and Honk Kong US\$25,493 countries which required a much longer period of time to reach their current levels. A unique feature of growth in Dubai is that its targets for 2010 were exceeded, its target growth of GDP for 2010 was US\$30 Billion by 2005 the GDP had grown to US\$37 billion ; Similarly its per capita income targeted for 2010 was US\$23,000, by 2005 it achieved US\$31,000. UAE is currently ranked 5<sup>th</sup> in the world, in terms of its per capita income. The per capita income rose to US\$49,000<sup>1</sup> in 2006.

Dubai's success story can be attributed to visionary leadership and innovative human resources mainly driven by Government policies aimed at improving the business and investment environment, in addition to initiatives that have been undertaken to establish specialized zones and mega projects (e.g. Internet and Media City, Healthcare City, the Palm, Dubai land, etc). Developmental planning ensured that Dubai was able to attract excessive regional liquidity in the form of Foreign Direct Investment (FDI). Economic restructuring resulted in the non-oil sector contributing 46% of the GDP in 1975, this increased to 90% in 2000 and to 95% in 2005. The service sector has been the main driving force contributing 74% to the GDP. Other supporting factors are supply-side factors such as availability of land for major real estate projects and skilled expatriate labour; the existence of efficient government services; a solid institutional framework and good mechanisms for service delivery; strong laws and regulations; excellent infrastructure, a strategic location coinciding with the rapid rise in global trade, especially with China and India and openness to other cultures, giving Dubai a reputation as a safe and comfortable place to live and do business.

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<sup>1</sup> World Fact Book 2007

### **3. Purpose of the Study**

Dubai (United Arab Emirates) has turned outwards and immersed itself in the global knowledge stream. The last decade has seen a spurt in educational institutions in Dubai. However, very little research has been done to ascertain whether the degrees and courses that these universities offer are in synchrony with the aims and objectives of the Dubai Strategic Plan 2015.

### **4. Review of Literature**

The rising investments in higher education and associated costs have in recent times turned the spotlight on the practical relevance of professional courses to industry requirements and also to the strategic thrust areas especially in rapidly growing economies which are experiencing enormous skill shortages. A range of literature, for example have examined structure and content of professional programs to identify whether these are aligned with industry requirements and impart the kind of skills that are in demand.

Kretovics (1999) for example found statistically significant differences in learning skills when two groups, one that had attended MBA programs and those that didn't were compared, skills that could not be achieved only through work experience thereby pointing to the relevance of these programs in developing required competencies and skills. The significance of the role played by education in contributing to rapid economic and industrial development when the structure and content are aligned with industry requirements is perhaps best illustrated by the Singaporean model of education Sakellariou, C. (2006) in a study examined the impact of general and vocational/technical education in Singapore on the earning potential of males vs. females. Findings revealed that women with secondary vocational qualifications not only earn more, but also participate more in the labor force and have a higher probability of employment as compared to women with secondary general qualifications. Malaysia on the other hand does not appear to be as strategically focused as Singapore. An empirical study by Quek (2005) carried out on Malaysian graduate employees emphasized that tertiary training need to consider the development of generic competencies such as interpersonal skills, knowledge acquiring skills and flexibility in students so as to enable them to meet the changing demands of the workplace when they graduate. The emerging decentralized organizations thrown up by the economic reforms in China, one of the fastest growing economies of the world have important implications for managers of these organizations to develop competencies and skills that were not required traditionally. Newell (1999) proposes a community model of management education in China that incorporates the realities of the indigenous context combined with traditional western models of Management education for greater relevance and impact.

Some interesting results about the trends and gaps in professional education have also been reported from Europe and North America. Paucar-Caceres (2008) mapped the structure of MBA programs as offered by British and French Universities and found that although parts of the industry still view the MBA with a certain degree of ambivalence in their impact on imparting practical skills in changing times, continuous improvements have been made in the curriculum. Specifically the author suggests that the MBA model currently used in Europe has an increasing emphasis on international content, greater relevance to real-life business, and a recent introduction of training in 'soft-skills' in their curriculum. Other authors such as Avery et al. (1999) have tried to identify the extent to

which management education in Australia and New Zealand are meeting the changing skill requirements in response to current economic challenges that have highlighted the deficiencies in management skills at the industry level, especially since organizations in these regions are becoming more multi-cultural and hence require people with appropriate soft-skills such as cultural sensitivity. The study concludes that Australia and New Zealand enterprises are lagging behind compared to world standards in recognizing the importance of and implementing both basic and continuing management development programs using internationally relevant 'best practice knowledge'. Blass and Weight ( 2005 ) and Cabera and Bowen ( 2005) further emphasize that MBA degrees need to be revised to build a global management knowledge base that is both theoretically grounded and instrumental for practice thereby 'earning' a professional status. Baruch and Leeming (1996) perhaps sum it up best when they say that adaptation is the key word and the final blend in programs offered needs to be aligned with specific local demand and technological and environmental changes which affect business life. While research identifying the structure and content in Management education from around the world at a generic and specific level have been documented, there is a need for more research in the areas of trends and gaps if any in specialized streams of professional education especially in emerging international education hubs such as the U.A.E so as to offer important insights into the focus areas.

## **5. Methodology**

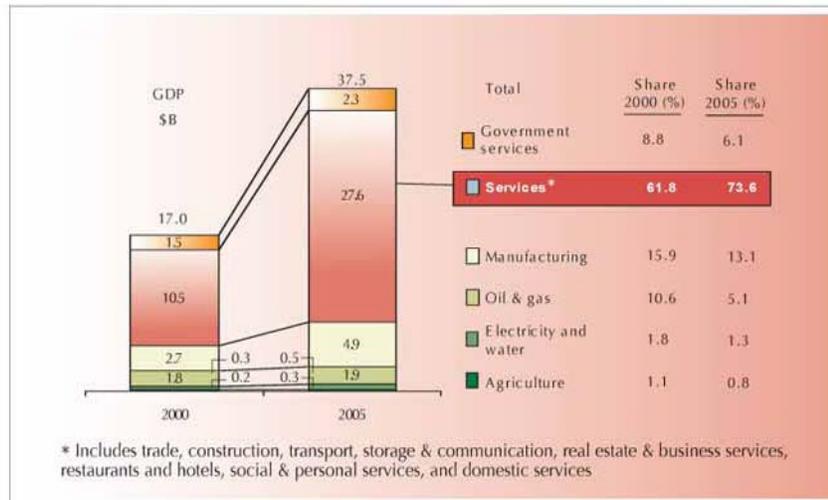
This research is mainly desk research based on secondary data published by Universities in the UAE, the Ministry of Economy- Statistical Yearbook for various years and the Dubai Strategic Plan document. The study covered a full range of the Post-graduate and undergraduate courses offered by various Universities in the U.A.E. The sample comprised of the complete list of 44 accredited Universities based in the various emirates of U.A.E, including but not limited to Abu Dhabi, Sharjah, Dubai, Al-Ain and Ajman .Information about the courses offered as well as subject specific concentrations and electives along with course details were obtained from Prospectuses that were collected from the various Universities and these were then analyzed. Corresponding data as published on the University websites dated May 2008 were also examined for further reference. Only Universities and courses accredited by the Ministry of Higher Education in the UAE were included in the study.

## **6. Data Analysis and Findings**

The driving force behind Dubai's economic performance has been the government, through investment and other initiatives coupled with rapid inflow of foreign direct investment into various sectors. The sectors that have been projected to grow in the coming few years are travel and tourism, transportation and logistics, trade and storage, financial services, professional services, construction and real estate. These sectors are well placed to constitute the focal point of Dubai's future growth path within the economic development sectoral plan (DSP2015). The strategic plan is based on a combination of these 6 building blocks. Educational development with an emphasis on development of human capital and productivity are among the first two enablers if the objectives of the plan are to be achieved.

***Figure 1: GDP by Sector 2000 and 2005 (at current prices)***

FIGURE 3: GDP BY SECTOR, 2000 VS. 2005 (AT CURRENT PRICES)



Source: Dubai Strategic Plan 2015 page 19 and Ministry of Economy , UAE

Based on the analysis of the Ministry of Economy, trade construction, transport, storage and communication, real estate and other business, restaurants and hotels, social and personal services and domestic services make up the service sector in the country. The contribution of the service sector to the Gross National Product (GDP) has increased from 61.2 percent of the GDP to 72.6 percent in 2005 and further to 74 percent of the GDP in 2007. There has been a decline in the contribution of Government services from 8.8 percent of the GDP in 2000 to 6.1 percent of GDP by 2005. Similarly the contribution of manufacturing to the GDP has fallen from 15.9 percent of the GDP in 2000 to 13.1 percent of the GDP in 2005. The dependence on oil and gas has also declined. In 2005 merely 5.1 percent of the GDP came from this sector. This trend underscores the importance of the service sector as the key driver of economic growth with an annual growth rate of 21 percent since 2000 constitution US \$27.6 Billion of Dubai's current GDP in 2005. (DSP2015)

Analyses of the current trends in professional education in the accredited universities in the region show the following trends:

### 6.1. Travel and Tourism

In terms of professional courses merely 7 percent of the accredited universities cater to courses in Tourism. The main thrust in this area is in international hospitality management. The courses broadly cover courses on kitchen and restaurant management, restaurant revenue management, tourism policy, planning and development, airline station management and E-tourism.

The World Tourist Organization has ranked Dubai 18<sup>th</sup> in the world in terms of Competitiveness of its Tourism sector. In terms of absolute increase in the number of visitors during 1995-2005 Dubai ranks 12<sup>th</sup> in the world, with an increase of 3.5 million visitors during the same period. As a tourist destination Dubai offers an impressive range of leisure and recreational facilities which include desert safaris, dune bashing, sand skiing, its state of art beach resorts offers visitors' unique facilities for sailing, water skiing, wind surfing.

In terms of employment potential the wholesale and retail trade as well as restaurants sector has grown at a rate of 24.5 percent during 1980-1985 to 150.38 percent between 1985-1995 and 38.76 percent during 1995-2000 and further by 44.27 percent during the period 2000-2005 (Appendix 1).

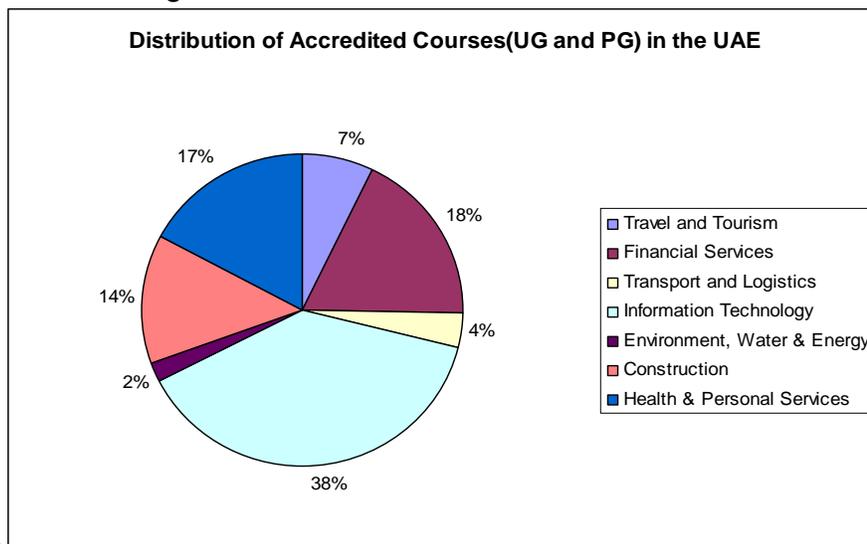
The number of universities and colleges offering courses in Tourism and International Hospitality Management are extremely few and therefore the sector depends on migrant labour to meet its demand for relevant workforce.

## 6.2 Financial Services

The study shows that approximately 18% of the universities surveyed offer courses in financial services. These include corporate finance, financial planning and control, investments and financial markets and international finance. A number of institutes also include courses in Islamic banking, portfolio management and planning, financial risk and insurance.

The government adopted an open policy and therefore this sector grew at an accelerated pace during the period 1980 to 2005. The growth in employment rose from 50.41 percent during 1980-1985 to 132 percent during 1985 to 1995. With the inflow of banks, insurance companies and financial services the sector grew further by 55.57 percent from 1995-2000 and again by 93.48 percent during 2000-2005 (Appendix1)

**Figure 2: Distribution Accredited**



**Courses**

Source: Based on survey of prospectuses of Accredited Universities in the UAE  
Percentages calculated by authors.

## 6.3 Transport

The U.A.E. General Aviation Authority (GCAA) along with the Arab Air Carriers Organization (AACO) and International Air Transport Association (IATA) has addressed the change in the air transport sector. The current graduate degree programmes include Bachelor in Flight and Aviation Management, Master of Science in Transport

Management and Airport Management and Operation. The university offers Aeronautical Engineering and Mechanical Engineering. Dubai prepares graduates for jobs in airlines, airports, manufacturing and maintenance and aeronautical engineering. The college of Aero and Astro Sciences train students to become pilots and aviation/ aerospace industry decision makers.

There is only one institute that offers courses in naval studies. Very few institutes offer courses in communication engineering including digital logic principles, analogue electronics, satellite communications, audio and imaging processing and digital signal processing and communication security. The University of Aviation offers specialization in Aerospace Management, and a Masters Degree in Global Logistics. Short courses are also being offered by very few in International aviation management, air cargo, airport planning and design and economies of air transportation.

Very few professional degrees are available on supply chain and logistics although Dubai has developed into the most important transport and logistics hub for the region. Employment in this sector has increased from 17, 004 in 1980 to 85,072 in 2005. the growth of employment in the Transport, Storage and communication sector has risen from merely 18.52 percent between 1980-1985 to 83.03 percent during 1985 -1995 and again by 80.78 percent between 2000-2005 (Appendix 1).

Our analysis of the universities shows that merely 4 percent of the universities surveyed provide courses relevant for this sector.

#### **6.4 Information Technology**

The U.A.E. has emerged as the forerunner in the Arab region and is among the top information technology users in the world based on the classification issued by the United States IDC Group in 2001. The telecommunication services were provided by Emirates Telecommunication Corporation (Etisalat). This included a hardware infrastructure in the form of telecommunication networks, databases, telephone services, personal computers, main frame and supercomputers as well as software infrastructure in the form of a policy and regulatory environment which included laws regulation, intellectual property, cyber laws and electronic signature among others.

This inspired a number of institutions to provide Bachelors as well as Masters Degrees in Information Systems, which included software development, E-Commerce, Data Warehousing, and Data Mining, Client Server technology, Computer and Electronic Engineering. Practically all the institutes surveyed offered courses in information technology.

The trend should be to produce hybrid managers who can effectively align business and IT strategies.

**Futuristic Trends:** There is a need to upgrade the technology in order to integrate new technologies (computers, micro-controllers, software engineering, semiconductor devices and mechanical systems). Innovative courses such as Mechatronics are being offered which is a blend of mechanics, electronics, information technology and computers is a means of synergizing the use of precision engineering, control theory, computer science, and sensor and actuator technology to design improved products and process.

#### **6.5 Building and Construction**

This is the sector that is currently booming in Dubai. Employment in the sector has grown from merely 30,472 in 1980 to a massive 394,232 in 2005. This is seen from the growth of employment from merely 12.09 percent between 1980-1985 to 168.61 percent during 1985-1995 and again by 168.33 percent during 2000-2005. Approximately 15 percent of the universities surveyed offer courses in building and construction. These include courses in civil engineering, architectural studies, interior designing, environmental design of building and project management and urban planning. Innovative courses like property development and management have recently been included by some universities.

A Masters Programme catering to Sustainable Design of Built Environment provides an innovative approach to sustainable design, integrating architectural and engineering solutions. The course prepares students for jobs as mid-career professionals in fields related to the built environment such as architecture, building services, civil engineering building technology or environmental studies.

## **6.6 Health and Personal Services**

The public health care sector provides an academically challenging and stimulating study of quality management within the health care sector. It includes health care management, epidemiology, biostatistics and global health, TQM, health care information and communication systems. It also covers ethical, social and legal issues in healthcare. Figure 2 shows that 17 percent of the universities surveyed have courses in the sector, these include biomedical engineering, pharmacy, physiotherapy, nursing, dental surgery, medical diagnostic imaging and medical laboratory technology. With the huge inflow of migrant population and in the light of the fact that the government has made medical insurance compulsory for all this sector needs to expand if it is to cater to the ever growing need for public health services.

## **6.7 Masters of Business Administration.**

The MBA electives that are offered by a number of universities include general masters degree and popular streams like marketing, finance and international business. Very few universities offer courses with specialisation in Logistics and Supply Chain Management, International Banking and Financial Services, Public Health Administration, Materials Management or Warehousing.

## **7. Conclusion**

This study is an attempt to identify the trends in professional educations at the Undergraduate and postgraduate level in U.A.E. An attempt has also been made to align these findings with the strategic growth areas in employment as projected by the Dubai Strategic Plan 2015, which include Travel and Tourism, Financial Services, Transport and Logistics, Information Technology, Environment, water and Energy, Construction, Health and Personal Services. While current Universities are doing an excellent job in the type of courses that are being offered, there is scope for a large number of Universities to provide courses aligned with industry requirements in the future. For example, findings reveal a dearth of professional education in some of the fastest growing sectors, these being Travel and Tourism, Construction and real estate

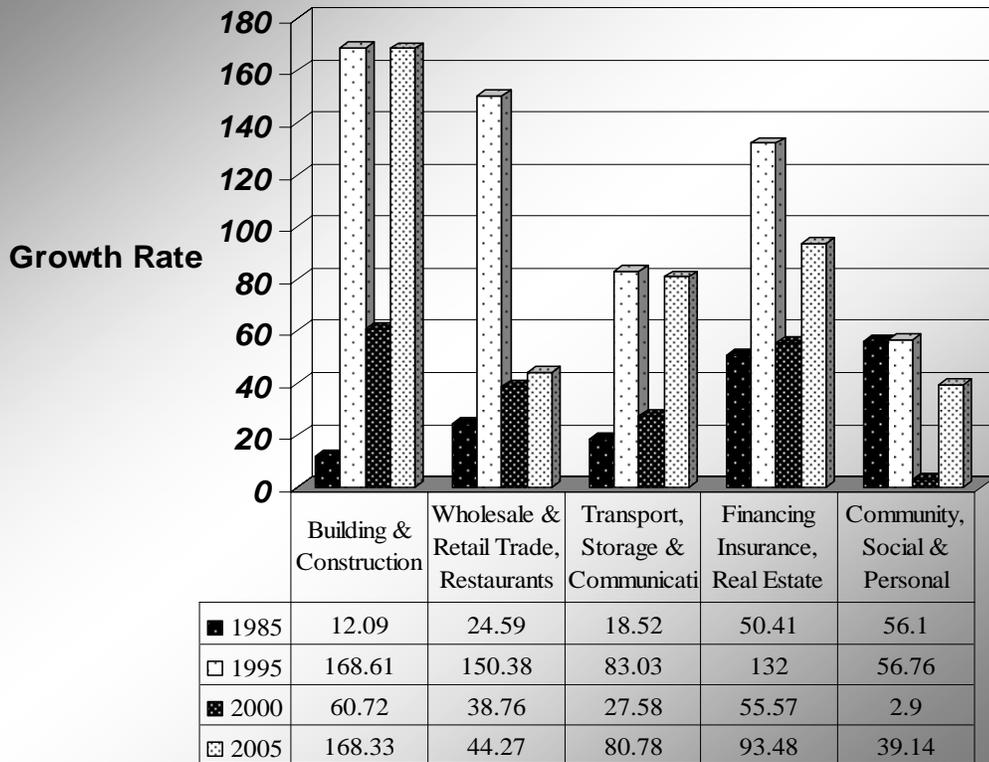
and Public health and professional services. The study offers important insights for existing Universities to expand and diversify and also for the new Universities to take a step in the direction.

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## Appendix 1: Growth in Employment by Economic Activity during 1980-2005

## Growth in Employment by Economic Activity



Source: Ministry of Economy, UAE, Statistical Yearbook 2005, pp 65-66  
 Percentage calculated by authors.

## Appendix 2: List of accredited Universities included in the Study

<b>Accredited Universities</b>			
1	Abu Dhabi University	23	Falcon College of Hotel Management and Tourism
2	Ajman University of Science and Technology	24	Fujairah College
3	Al-Ain University of Science and Technology	25	Gulf Medical College
4	Al Ghurarir University	26	Higher Colleges of Technology
5	Al Hosn University	27	Institute of Management Technology
6	Al Khawarizmi International College	28	International Institute for Safety and Security
7	American College of Dubai	29	Islamic and Arabic Studies College - Dubai
8	American University in Dubai	30	Itihad University
9	American University of Sharjah	31	Naval College
10	British University in Dubai	32	Nicholas & ASP Post Graduate Institute
11	Centennial University of Dubai Computer College	33	Paris Sorbonne University
12	Dubai Medical College for girls	34	Petroleum Institute
13	Dubai Pharmacy College	35	Police Sciences Academy Sharjah
14	Dubai Police Academy	36	Ras Al Khaimah Medical and Health Sciences University
15	Dubai Women's College	37	Skyline College
16	Electronic Total Quality Management	38	Syscoms College
17	Emirates Academy of Hospitality Management	39	University of Dubai
18	Emirates Aviation College Aerospace and Academic studies	40	University of Sharjah
19	Emirates College for Management and Information Technology	41	University of Strathclyde Business School, U.A.E
20	Emirates College of Technology	42	University of Wollongong in Dubai
21	Emirates Institute for Banking and Financial Studies	43	Zayed University
22	Etisalat University College	44	



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