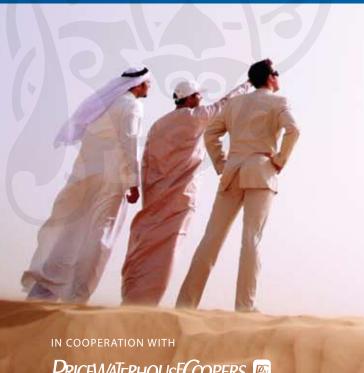




The Voice of CEOs





"Our region's success depends on creating an environment conducive to acquiring knowledge and on providing tomorrow's leaders with motivation to build a better future. It is our duty to convert them into great assets to themselves, their nations and to the world."

HH Sheikh Mohammed bin Rashid Al Maktoum

FOREWORD

With a personal endowment of US \$10 billion, His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the United Arab Emirates and Ruler of Dubai, announced the establishment of the Mohammed bin Rashid Al Maktoum Foundation.

One of the key objectives of the Foundation is to elevate the educational levels and consequently enhance the employability of the future Arab generations. As part of this effort, the Mohammed bin Rashid Al Maktoum Foundation spearheaded a survey and research report: The Arab Human Capital Challenge.

The report reveals that human capital, and the mismatch between supply and demand, both in terms of the quality and quantity of labor available, is amongst the most pressing challenges to Arab businesses going forward.

Business leaders from 18 countries across the region discussed and debated their views on the human capital challenge and came to some important conclusions. Enhancing the quality of education and improving teacher training are considered top priorities for closing the skills gap. Public and private sector cooperation is yet another key component to progress, especially in education.

The Report is a blueprint for reform and record of thoughts and recommendations from Arab business leaders for the region as a whole. The Mohammed bin Rashid Al Maktoum Foundation acknowledges their views and is actively engaged in devising and facilitating initiatives to put these recommendations into action.

In this regard, the Foundation has launched many strategic programmes and projects that support creativity and entrepreneurship. Among these programmes is Sawaeed which has prompted numerous promising initiatives, and the Arab Incubators' Network which, for the first time, links Arab incubators in a knowledge and expertise sharing environment.

We would like to thank PricewaterhouseCoopers for helping us develop a rigorous methodology for the report and for assuring high standards of objectivity, integrity and independence towards the undertaking of such an exercise. Most importantly, we would like to thank all senior executives involved, without whom the report would not have been possible.



Sultan Ali Lootah,

Vice President, Employment and Entrepreneurship, Mohammed bin Rashid Al Maktoum Foundation

APPROACH & METHODOLOGY

In May 2007, at the World Economic Forum on the Middle East held at the Dead Sea, Jordan, HH Mohammed bin Rashid Al Maktoum announced the establishment of the Mohammed bin Rashid Al Maktoum Foundation.

One of the Foundation's key mandates is to focus on improving education and subsequently enhance the levels of human capital throughout the region.

With courage, the *Arab Human Capital Challenge* represents the voice of the Arab business leaders, a voice that raises and tackles the issues that hold the region behind.



The Arab Human Capital Challenge identifies factors that threaten to affect sustainable growth and development in the Arab World. In particular, it identifies issues pertaining to human capital and education deficiencies, and puts forth recommendations for improving education in one of the fastest developing regions in the world.

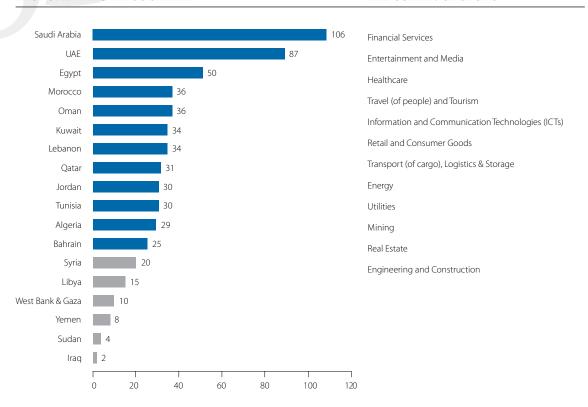
The work on this report, led by Anne Simon, delivers a comprehensive and independent assessment of the Arab World's corporate agenda, addressing the issues faced by leaders of the region's private sector. Leading executives have offered their insight into:

- Drivers of business confidence
- Drivers of business growth
- Barriers to business growth



RESPONDENTS BY COUNTRY *

INDUSTRY / SECTORS



The Arab Human Capital Challenge based its analysis on 587 survey results which were completed in Arabic, English and French across 12 industry sectors and 18 Arab countries, during the third quarter of 2007. In addition to the quantitative survey, the study was complimented by in-depth interviews with more than 40 prominent senior Arab executives, leaders in their respective industries or markets. These CEOs agreed to comment on many of the results and provide their insight.

Furthermore, the research was shared with senior representatives of International Organizations who provided secondary research to help place the survey results in a socio-economic context. Finally, numerous CEOs and public sector representatives throughout the region shared their own successful experiences and best practices. The report utilizes the collective views of these executives to identify issues, provide new ideas, solutions and recommendations.

^{*} Please note that when industry specific quantitative analysis is considered the report combines "Utilities and Mining," and 'Engineering, Construction and Real Estate' sectors as individually the number of respondents were too low. Please also note that when country specific quantitative analysis is considered the report excludes countries with less than 20 respondents; namely Syria, Libya, West Bank & Gaza, Yemen Sudan and Iran

The Arab Human Capital Challenge database is representative of the GDPs of participating countries. Equally, the respondent base illustrates a statistically valid account of the region as a whole. Great care was also taken to ensure that enough responses were acquired in each of the 12 sectors to provide for sound comparisons.

Using survey data the *Arab Human Capital Challenge* constructs two indices that are used to highlight key findings:

- The Education Capability Index
- The Education Involvement Index

PwC's Intelligence and Research Unit, its in house center of excellence for research, was responsible for designing the report methodology and conducting the field work. Our survey specialists used tried and tested methods for assessing market challenges and measuring opinion leaders' perceptions, bringing credibility and objectivity to the report.

In order to ensure robustness of the survey analysis, all in-house interviewers operated within the guidelines of the Market Research Society Code of Conduct, they are also accredited under the Interviewers Quality Control Scheme (IQCS), which is the industry quality standard for field work.

PwC is proud to be associated with the Mohammed bin Rashid Al Maktoum Foundation which has effectively positioned itself as a pioneering force in the Arab world.

Michael Stevenson,

Senior Partner,

PricewaterhouseCoopers, Middle East Region

M & Strumm

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HIGHLIGHTS

1. HUMAN CAPITAL CHALLENGE

Exceptional economic growth in the Arab region over the past decade has not coincided with equally buoyant labor and human resource development, raising obvious concerns for sustainable and balanced growth. Survey results reveal that only 38% of Arab CEOs believe that there is an ample supply of qualified national labor, which therefore translates to a heavy reliance on the recruitment of expatriates. The Gulf suffers the most from this insufficiency of skilled labor and therefore has the highest reliance on expatriates at 91%. Moreover, another key challenge as highlighted by Gulf CEOs is that the quality and productivity of expatriates is far superior then the national workforce at all management levels.

2. TALENT CRUNCH - A SKILLS GAP

The lack of available talent and trained resources was the greatest threat identified by Arab CEOs for sustainable development. Only half of the CEOs surveyed believe that there are sufficient numbers of qualified students coming out of the education system, with 54% citing that new graduates carry the right skills set. Equally, only 48% believe that these skilled students are provided in sufficient quantities. Gulf leaders are amongst the least satisfied with the supply of skilled students, with only 37% citing their satisfaction.

3. LOW EDUCATION CAPABILITY

The Education Capability Index, which represents CEO satisfaction levels related to the education system, is based on the current quality, the adequate skills acquired by students upon graduating and the ability of the education system to meet future market requirements. Overall it is particularly low in the Arab region at a mere 42.6 points.

4. IMPROVING EDUCATION

With regards to education, Arab CEOs believe that improvements must be made, first and foremost, to curriculum delivery and content. Across all three sub regions, improving teacher training is considered the most important issue to address at both high school and university levels. This was followed by the enhanced delivery of curricula, study of second language and improved facilities. The issue of better facilities was deemed particularly important to respondents in the Levant.

5. PUBLIC AND PRIVATE COOPERATION FOR EDUCATION DEVELOPMENT

CEOs emphasize the need for governments to take an active role in regulating and monitoring the education system throughout the region. The importance of private and public sector cooperation also emerged as fundamental to improving service delivery and quality. According to survey findings, only 35% of Arab CEOs believe that the private sector in their countries has successfully communicated its expectations to the education system. That said, based on the Education Involvement Index score of 66 points, it is evident that Arab CEOs are willing to participate and be involved in making the necessary improvements to education. This positive attitude is more or less consistent across the region. The fact that most Arab business leaders expressed a willingness to participate in improving education is a foundation upon which to build further public-private cooperation.

6. EMPLOYMENT TRENDS NOT WOMEN AND YOUTH FRIENDLY

Employment creation for young people is a major challenge in the Arab region. The region faces a demographic 'youth bulge'; whereby 30% of the population falls between 15-24 years. However, the employment to population ratio of this age cohort remains extremely low: 32.2% in the Middle East and 27.4% in North Africa. Clearly the region is failing to capitalize on its future 'Youth human capital' value. Furthermore according to Arab CEOs, increasing the labor force participation and integration of women into their workforce is a major challenge. They state that failure to make improvements could result in both a social and economic cost to the region in terms of a loss of human capital utilization and returns from education.

ECONOMIC CONFIDENCE BAROMETER

AIMING FOR THE SKY

The Gulf, Levant and North Africa have experienced exceptional rates of development over the last few years. The region's record growth was at 5.8%¹ in 2007.

In the oil exporting countries of the Gulf, high oil prices have fueled a significant increase in both public spending and infrastructure development. There has been a wave of policy reforms to improve investment and the overall business climate, though the region still has room for improvement. Fiscal reforms, the move to adopt a Value Added Tax system, as well as the gradual reduction of government subsidies have all served to promote development throughout the region.

Record high levels of liquidity in the Gulf have encouraged public spending, re-investment and foreign direct investment (FDI) outflow to many Arab countries such as Egypt, Jordan and Tunisia. This FDI outflow has gone into numerous sectors that have since prospered, such as tourism, real estate, construction and financial services. These sectors have become the main vehicles for growth and have generated employment for people throughout the region at all levels.

The region's growing economy has thus created a heightened need for skilled and qualified labor. Increased pressures on the demand for a skilled national workforce have only further revealed the scarcity of its supply. This gap between supply and demand is further exacerbated by the fact that a large proportion of the population is under the age of 30 and weaknesses have been indentified in the region's education systems ability to supply relevant skills and provide available training.



HUMAN CAPITAL CHALLENGE

BUSINESS CONFIDENCE FACES TALENT THREAT

The region's exceptional economic growth over the last decade has not coincided with equally buoyant labor and human resource development. This has raised obvious concerns for sustainable and balanced growth throughout the Arab world.

North Africa, for example has the lowest employment-to-population ratio in the world, whereby not even five out of every ten people of the working-age population (15-64 years) are classified as employed. This low share is associated, in part, with the minimal number of women and youth in the workforce. Moreover, the region has faced high labor growth rates averaging around 4.9% in the Middle East and 3.3 % in North Africa annually over the last decade (1997-2007)², associated with a share of youth to the working age population of over 30%³.

EMPLOYMENT TRENDS ARE NOT WOMEN AND YOUTH FRIENDLY

It is evident therefore that employment creation is a major challenge in the region, especially for young people as they move towards entry to the labor market. Unfortunately, regional economic growth has not been 'youth employment friendly' per se. In other words, these economies have been ineffective in creating jobs for the youth age cohort, evident from the low employment-to-population ratios⁴ of 32.2% in the Middle East and 27.4%⁵ for North Africa.

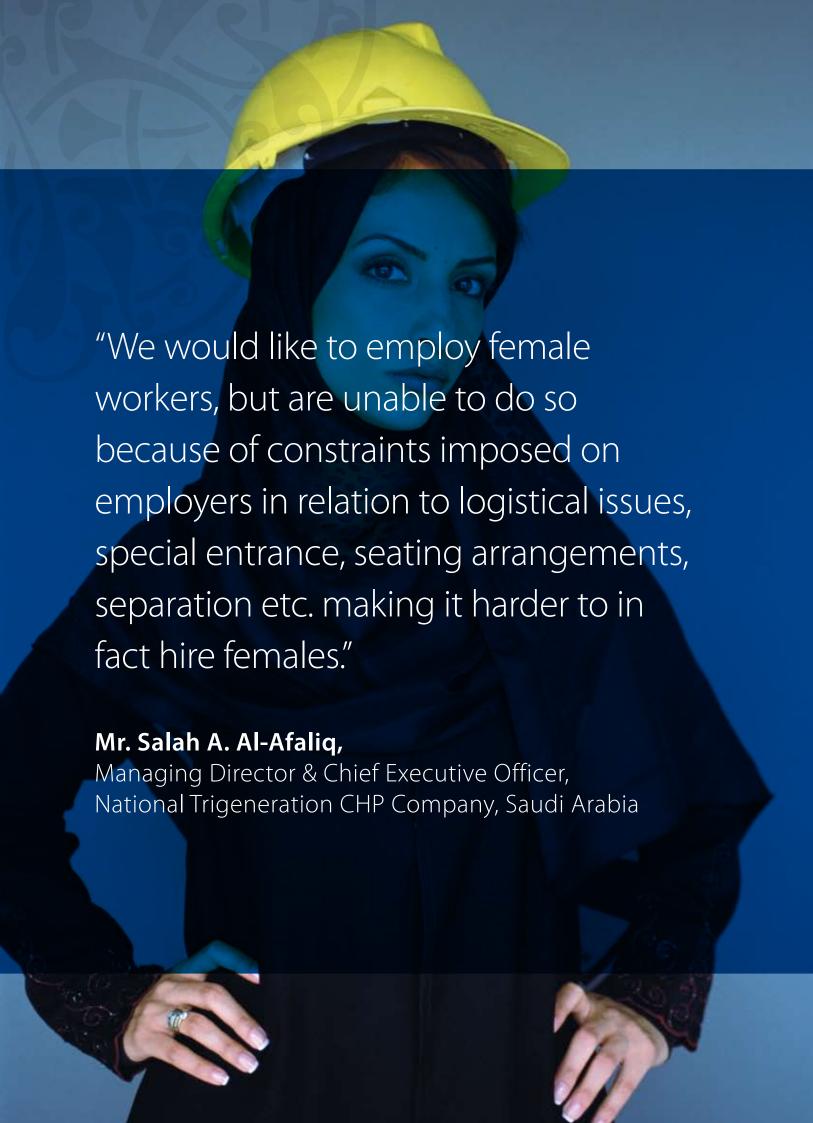
> "Almost 50% of the GCC's population is under the age of 25. On the employment front, this could be a boom! If such manpower is employed suitably it would accelerate growth significantly. Thus over years to come, creating job opportunities to such a young and rapidly growing population is a major challenge."

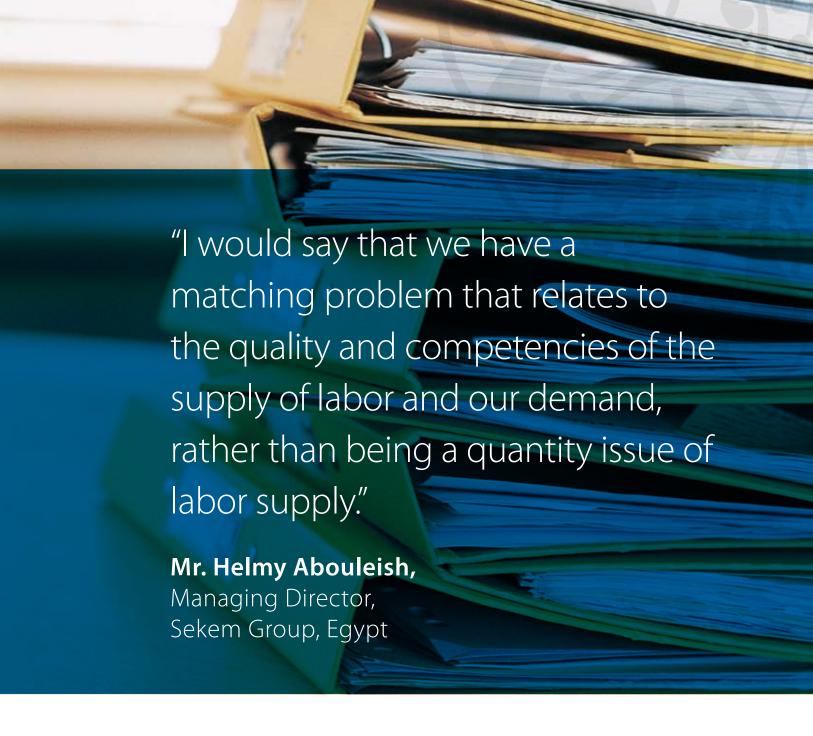
Mrs. Maha Al-Ghunaim,

Chairman, Global Investment House, Kuwait

² ILD, Global Employment Trends Model November 2007; IMF, World Economic Outlook, October 2007
³ ILD, Employment Trends Model November 2007, Appendix 2
⁴ The employment-to-population ratio is defined as the proportion of an economy's working-age population that is employed. As an indicator, the employment-to population ratio is provides information on the ability of an economy to create jobs

ILO, Employment Trends Model November 2007, Appendix 2





Increasing labor force participation and the integration of women into the workforce are major challenges faced by Arab business leaders. The failure to make improvements could result in both a social and economic cost to the region in terms of the loss in potential human capital utilization and returns from education. This concern has been highlighted by several Arab business leaders.

In addition, more than 90% of Arab CEOs believe that increasing female education will have a positive effect on the Arab world by enhancing the human capital value of women in the region. An overwhelming majority of business leaders believe in increasing female education, even in countries with very low levels of female workforce participation, such as Saudi Arabia.

To add to this dilemma, the Arab world also has one of the lowest labor productivity growth rates. This is a serious concern for many in the business community, especially as the region moves towards greater participation in the global economy.

"Women are very important, they account for 50% of the population. In some countries, when you realize that 50% of the population is paralyzed because they are women, it is a big deficiency for the economies."

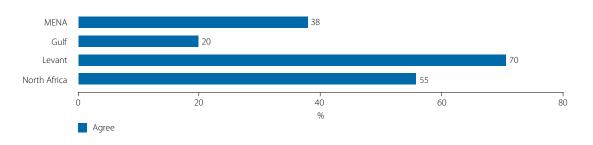
Mr. Moncef Mzabi,

Chairman & Chief Executive Officer, Mzabi Group, Tunisia

SOME SAY IT IS AN ISSUE OF QUALITY AND SOME SAY IT IS AN ISSUE OF QUANTITY. UNFORTUNATELY IT'S BOTH

Arab CEOs also identified the issues of quantity and quality in discussions pertaining to the region's human capital challenges. For example, most Arab business leaders claim that there is an insufficient supply or quantity of qualified national labor. Accordingly, only 38% of CEOs surveyed felt that there was a sufficient supply of qualified national workers. This perception varies however amongst the different sub-regions, with 70% of CEOs from the Levant perceiving the supply of qualified national labor, as being sufficient.

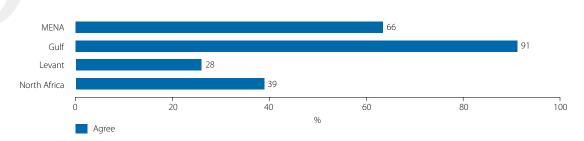
IS THERE A SUFFICIENT SUPPLY OF QUALIFIED NATIONAL LABOR?



These results are complimented by the high incidence of expatriates as a percentage of the workforce. Here, 91% of Gulf CEOs claim to depend on the recruitment of expatriates to fill key positions.



DEPENDANCE ON THE RECRUITMENT OF EXPATRIATES TO FILL KEY POSITIONS

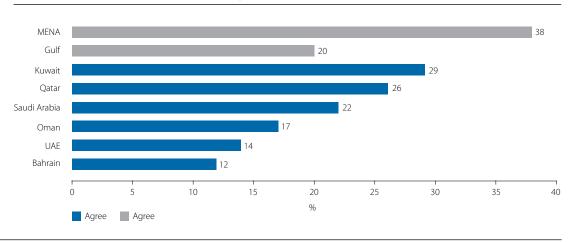


The Arab World faces a dual dilemma with regard to its human capital development. On the one hand, there is heightened pressure from a growing labor force that largely comprises of young people under the age of 29. On the other hand, it appears that the skills available do not coincide with market requirements. In other words, there is a mismatch between the 'supply of' and 'demand for' local human resources. Arab CEOs blame this on the weak links between education, training, skills development and the labor market.

WORKFORCE COMPOSITION: COUNTRY AND REGIONAL PERSPECTIVES

The lack of skilled nationals in the Gulf region combined with the rapidly diversifying economies has compelled most Gulf business leaders to hire expatriates to meet their development needs.

IS THERE A SUFFICIENT SUPPLY OF QUALIFIED NATIONAL LABOR?



HUMAN CAPITAL CHALLENGE CEOs' Concerns

Only 14% of CEOs from the UAE and 12% of CEOs from Bahrain expressed satisfaction in the sufficient supply of skilled nationals. Whilst Kuwaiti CEOs ranked highest at a mere 29% in terms of their satisfaction in the supply of skilled nationals, results for the Gulf region as a whole demonstrated low confidence levels.

Further, survey results reveal that 97% of Qatari CEOs, 94% of UAE CEOs and 85% of Kuwaiti CEOs interviewed claim to be dependent on the recruitment of expatriates. These findings would explain the high population growth rates throughout the Gulf, a phenomenon largely attributed to the vast influx of foreign workers.

NATIONAL VS. EXPATRIATE WORKFORCE

Arab CEOs were also asked to assess the quality of their expatriate and national workforces with a close examination of productivity and efficiency at different levels. Survey results show that 90% of Gulf CEOs value their expatriate senior management whereas only 68% shared similar views towards their national senior management.

"In the Arab world, we often hire expats for higher management with global experience - as there tends to be a shortage of nationals at this level"

HE Samer Majali,

President & Chief Executive Officer, Royal Jordanian, Jordan

Equally, only 55% of Gulf CEOs expressed satisfaction in the quality of their national middle managers. 92%, on the other hand, felt that the quality of their expatriate middle management workforce was of a high standard.

Using management levels as a proxy for experience or tenure in a firm or industry, and assuming that the average age for senior managers is higher than that of middle level management, these results are alarming.

The high proportion of CEOs expressing such low levels of satisfaction with the output of their national middle management seems to imply that the quality of work delivered by the younger, less-experienced nationals in the workforce is poor. This in turn reflects a low quality of future 'in-house' potential national senior resources.

NATIONALIZATION OF LABOR FORCE AND REDUCING RELIANCE ON EXPATRIATES

The rising unemployment rates amongst nationals and the need to increase the human capital contribution of the national workforce has encouraged many Arab governments to embark on labor nationalization policies. These policies were designed to increase the labor force participation of nationals, increase the proportion of national workers across different sectors, enhance their productivity and ultimately replace expatriate workers with national workers.

"We have a social obligation towards our nationals."

Mr. Abdulkarim Al-Sayed,

Chief Executive Officer, Bahrain Petroleum Company, Bahrain

Survey results confirm that labor nationalization policy outcomes have not lived up to their initial expectations. In fact, Gulf business leaders have been reluctant to replace expatriate workers with nationals. As earlier analysis suggests, Gulf CEOs tend to regard the quality, productivity and efficiency, of expatriate workers to be of superior value to their national resources. These same CEOs would rather avoid replacing an already efficient expatriate human resource base with potentially less productive national resources.

Of greater concern, however, is whether such perceptions will ultimately change over time as a large proportion of CEOs perceive the gap in both skills and education to be a serious threat to growth going forward. Moreover, most CEOs felt that these issues were not being adequately addressed as the existing education system was not producing suitably skilled graduates.

HUMAN CAPITAL CHALLENGE Compulsory Nationalization Quotas?

"The notion of labor quotas and the Nationalization policy is effecting negatively, for the simple reason that the supply of expertise does not match what the industry requires."

Mr. Hussam Abu Issa,

Vice Chairman & Chief Operations Officer, Salam International Investments Ltd, Qatar

Overall therefore, CEOs do not perceive compulsory national labor quotas to be particularly beneficial. Only 29% of Gulf CEOs believe that imposing such compulsory quotas will ultimately enhance their company's current performance. Likewise, 41% of Gulf CEOs believe that these quotas will benefit the economy. It is important to note that the issue of labor nationalization was not a concern for CEOs in the Levant and North Africa given their minimal reliance on foreign labor.

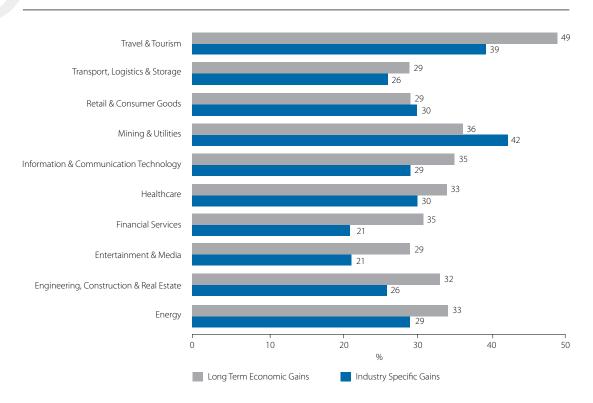
There also exist variations by sector. For example, 42% of CEOs in Mining and Utilities perceive nationalization quotas to have added value to their organizations, compared to only 21% in Financial Services and 21% in Entertainment & Media. It is worth noting here that this variation may have been influenced by the fact that the Utilities sector is often state owned and therefore compelled for reasons of strategic importance to be managed by nationals. On the other hand, due to both domestic and international competition, sectors like Financial Services, Entertainment & Media, cannot afford to compromise on labor efficiency.

"Nobody would want to bring in an expatriate, if they can find an equivalent National. That's a fact".

Mr. Tariq Al-Saffar,

Managing Director, Fortune Promoseven, Bahrain

COMPULSORY LABOR NATIONALIZATION QUOTAS WILL IMPROVE INDUSTRY-SPECIFIC AND LONG-TERM ECONOMIC GAINS - BY SECTOR

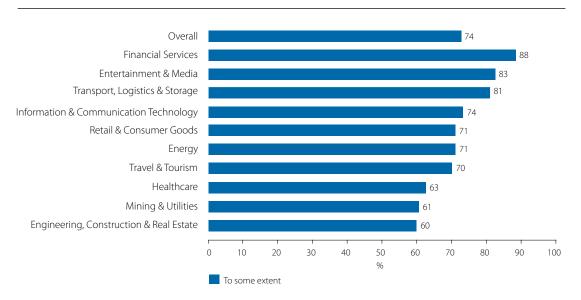


When asked to identify whether there was an adequate transfer of 'know-how' from expatriates to national staff, 74% of Arab CEOs believed that this was the case. That said, the proportion of CEOs in the UAE and Qatar who shared this view was lower than the Gulf average of 70%. Conversely, confidence was much higher amongst CEOs in the Levant at 88% and North Africa at 85%, results that can be attributed to the higher national productivity and educational levels prevalent in those sub-regions.

HUMAN CAPITAL CHALLENGE

Exploring these views by sector, 88% of CEOs in Financial Services, 83% in Media and Entertainment and 81% in Transport, Logistics and Storage (TLS) felt that there was an adequate transfer of 'know-how', a significantly higher proportion than the overall average of 74%. These views are promising, given that the above outlined sectors are principal 'drivers' of economic growth.

THERE IS AN ADEQUATE TRANSFER OF 'KNOW-HOW' AND KNOWLEDGE FROM EXPATRIATE TO NATIONAL STAFF - BY SECTOR



To sum up findings it appears that past labor nationalization initiatives have been supplydriven, with quotas on hiring nationals historically enforced irrespective of industry demand. This trend however failed to address a core private sector concern that the national workforce was not equipped with adequate skills, in turn leading to the continued preference of hiring expatriates.

Equally, on a more positive note, a high proportion of CEOs believe that there is an adequate transfer of 'know-how' from their expatriate staff to national staff. Assuming that CEOs hire nationals on the basis of selection not enforcement, labor nationalization policies still require a stronger skills development and training component which might enhance the applicability of national skills to industry needs. This in turn would encourage companies to hire nationals whose competencies are considered useful.

"I'm a believer in opening the market. At the same time the Saudization plan should stay there, but not as a constraint on the economy. The Saudization plan should be helping the economy by providing qualified labor, of the right caliber."

Mr. Salah A. Al-Afaliq,

Managing Director & Chief Executive Officer, National Trigeneration CHP Company, Saudi Arabia

HUMAN CAPITAL CHALLENGE Scarcity and Its Costs

RISING LABOR COSTS

When asked whether they expect labor costs to increase in the coming years, 84% of Arab CEOs believe that they will, particularly those based in the Gulf region. Results demonstrate that Arab CEOs consider the high demand for labor (92%) to be the primary drive behind the rising costs of skilled labor, followed by a shortage in skilled domestic labor (78%) and inflation (66%). These results are fairly consistent across the three sub-regions.

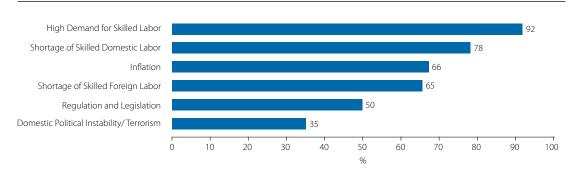
Rising wages can in part be attributed to the continued growth and subsequent demand for skills which have outstripped supply, most of which are imported. The recruitment of professionals from foreign countries has thus encouraged the introduction of higher remunerative packages so as to attract workers. Moreover, soaring house prices and the rising cost of living have compelled companies to raise staff wages in order to retain staff. This scenario sets the stage for a wage price spiral, which is likely to see wages continuing to rise in order to remain in line with inflation.

"The labor market is becoming increasingly tight and the salaries are getting higher. It's becoming hard to cope with the growth and the competition."

Mr. Talal Shair,

Chairman, Dar Al Handasah, Lebanon

REASONS FOR EXPECTED INCREASE IN COST OF SKILLED LABOR



STRUGGLING TO ATTRACT AND TO RECRUIT

When Arab CEOs were asked to identify the major challenges associated with recruiting both national and expatriate staff, 67% claimed that *finding* high caliber candidates was the major challenge, likewise 57% believed that *attracting* high caliber candidates was another key challenge.

"It is better to hire more from the Arab expatriates' pool of neighboring countries than hiring other non-Arab expatriates, who may come cheaper, but are unable to adjust to the Arab culture, or influence it."

Mr. Jamal Al Mutarreb.

Chief Executive Officer, Al Mutarreb Enterprises Group, Yemen

The survey also identifies challenges faced by CEOs in recruiting staff at different levels for example, CEOs find it most challenging to recruit senior management (62%), followed by the recruitment of middle management (51%), operational/technical staff (44%) and administrative staff (22%).

The difficulty associated with recruiting national senior management over middle management is largely a result of the limited availability of experienced and older national professionals. This is the case, in part because historically the older generation in the Gulf region has had lower labor force participation rates. Lower levels of education as well as the fact that the older age cohort is less accustomed to working in a modern day competitive environment have also presented an issue. In addition to this, CEOs from some Arab countries raised concerns regarding the large proportion of skilled nationals working abraod, thereby citing issues pertaining to 'brain drain' and the importance to repatriate this labor pool.

"There is a shortage of skills, retaining our existing talents and reattracting Syrian expats is a challenge, yet it is our job to do."

Mr. Nader Kalai,

Chief Executive Officer, Syriatel, Syria



EDUCATION AND SKILLS GAP

CEOS' DISSATISFACTION OVER THE QUANTITY AND QUALITY OF THEIR EDUCATION SYSTEM AND ITS SERVICE DELIVERY

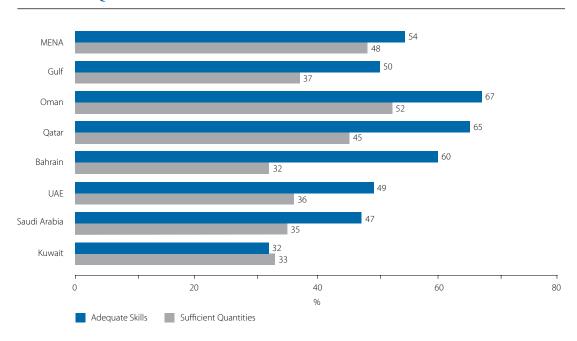
Only 54% of Arab CEOs expressed satisfaction with their education systems to produce students with adequate skills. Equally, only 48% believe that these skilled students are provided in sufficient quantities. Gulf leaders are amongst the least satisfied with the supply of skilled students, with only 37% citing their satisfaction.

"There certainly exists a skills gap between what sort of skills are available and what we need."

Mrs. Raja Al Gurg,

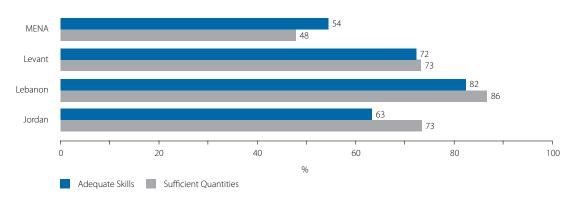
Managing Director, Easa Saleh Al Gurg Group, UAE

DOES THE EDUCATION SYSTEM PROVIDE PEOPLE WITH ADEQUATE SKILLS AND IN SUFFICIENT QUANTITIES TO THE ECONOMY? GULF



One particular obstacle faced by the fast-growing economies of the Gulf is that the educational sector is unable to keep up with the pace of development and demand for skills. In other words, there is a shortage of educational institutions – schools, technical and vocational centers – that are able to provide a sufficient supply of human capital to meet market demand.

DOES THE EDUCATION SYSTEM PROVIDE PEOPLE WITH ADEQUATE SKILLS AND IN SUFFICIENT QUANTITIES TO THE ECONOMY? - LEVANT



On the other hand 73% of Levant leaders expressed satisfaction with regard to the sufficient supply of skilled students and 72% in the education system's ability to produce the right skills. This can be explained by a whole series of historical factors pertinent to the Levant including strong schools, enrollment rates and specially focused education policies.

In North Africa views differ from country to country with Tunisia best placed to face the development challenges going forward both in terms of quantity (77%) and quality (70%) of talent. By contrast, only 34% of Egyptian Leaders cite satisfaction in their education systems to produce sufficiently-skilled students.

"We hire traditionally, based on technical skills, because graduates are not well rounded, and then we train them."

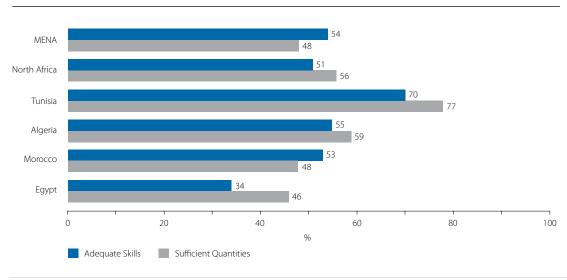
HE Samer Majali,

President & Chief Executive Officer, Royal Jordanian, Jordan

"The utmost weakness of the education system is the poor situation of teachers. They should receive better packages, more social respect and prestige."

Mrs. Raja Al Gurg, Managing Director, Easa Saleh Al Gurg Group, UAE

DOES THE EDUCATION SYSTEM PROVIDE PEOPLE WITH ADEQUATE SKILLS AND IN SUFFICIENT QUANTITIES TO THE ECONOMY? NORTH AFRICA



"The most important challenge facing education reform is the teachers' method of teaching."

Mr. Abdullah Al Saleh,

General Manager, Ministry of Foreign Trade, UAE

Arab CEOs also held strong reservations regarding the general quality of teachers that exist in the education system. With many of the opinion that the teaching capacity and caliber of teachers was poor and varied considerably between different institutions, leading to inconsistencies in teaching service delivery.

CEOs further highlighted the importance to introduce better screening and selection criteria for teachers so as to ensure a uniform standard that is nationally accredited.

"There needs to be a stronger screening process for hiring teachers, and for the existing ones, there needs to be a re-training program."

Mr. Simon Karam,

General Manager, Travo LLC, Oman

INDUSTRY PERSPECTIVE

From an industry point of view, 57% of Entertainment and Media leaders are concerned with the education system's ability to provide sufficient numbers of qualified people, followed by Energy leaders at 52%. On the other hand, 50% of Retail & Consumer goods leaders are the most concerned with the education system's ability to provide the economy with adequate skills. This is followed by Travel & Tourism (48%) and Entertainment & Media leaders (48%). Overall, there was little variation regarding the extent to which different sectors faced these human capital challenges.

EDUCATION AND SKILLS GAP

The Talent Crunch

"We need to move away from the theoretical education that we have in our universities now, towards more practical curricula, that are linked to the needs of the private sector."

Dr. Abdul Malik Al Jaber,

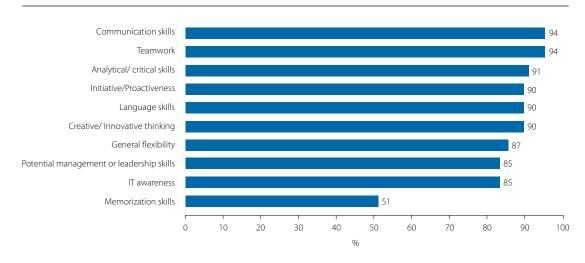
Vice Chairman & Chief Executive Officer, Palestine Telecommunications Company, Palestine

NEED TO BRIDGE THE SKILLS GAP

Having expressed a general dissatisfaction with the quality of skills delivered to the market, Arab business leaders were asked what their fundamental expectations were from the education system.

Overall, soft skills like communication, teamwork, analytical skills and innovative thinking were found to be most important to Arab business leaders who rated them at 90% or above. Memorization skills on the other hand, were at the bottom of the list in terms of their perceived importance.

TYPE OF SKILLS CONSIDERED IMPORTANT WHEN RECRUITING GRADUATES







EDUCATION AND SKILLS GAP CEOs' Employability Dilemma

"English and IT are the biggest weaknesses in the education system. This is a result of poor teaching and curricula."

Mr. Jamal Al Mutarreb,

Chief Executive Officer, Al Mutarreb Enterprises Group, Yemen

EMPHASIS ON SOFT SKILLS

It is clear that Arab CEOs favor soft skills such as problem-solving and communication skills over the ability to perform routine tasks. The International Labor Organization corroborates these finding when suggesting that employability is closely linked to the capacity of an individual to adapt to change and the ability to combine different types of knowledge and build on them by managing self-learning throughout his/her working life.⁶

When analyzing the views of business leaders by industry, CEOs in Engineering, Construction and Real Estate rated communication skills and teamwork highest at 66% and 65% respectively. Teamwork and communication skills were also regarded as vital by CEOs in the Retail and Consumer Goods, Travel and Tourism, Healthcare, Mining and Utilities sector. While those from the Energy, Financial Services and ICT sectors, regarded analytical and critical thinking skills as most important.

ARAB CURRICULA ARE BASED ON THEORETICAL KNOWLEDGE RATHER THAN PRACTICALITY

Almost three quarters of Arab business leaders believe that the emphasis of the region's educational curricula is based on theoretical knowledge rather than practicality.

The development of such skills requires an educational system which prioritizes skills acquisition as opposed to memorization. Recent international trends in education for example, have aimed to do this through the promotion of what is referred to as inquiry-based learning. Many countries worldwide have adopted inquiry-based learning methods,

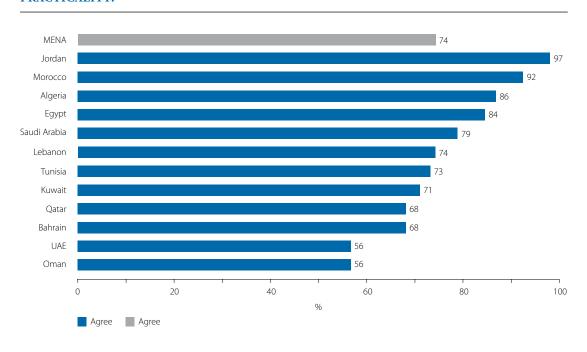
a form of active learning where progress is assessed by how well students develop their experimental and analytical skills. Most Arab countries, on the other hand, concentrate on traditional learning methods like copying from the blackboard, and minimal interaction between teachers and students.⁷

"My main issues with the education system are with the language skills produced, and the emphasis on theoretical curricula rather than practice and internships."

Mr. Jamil Ali Sultan,

Director, W. J. Towell & Co. LLC, Oman

ARAB CURRICULA ARE BASED ON THEORETICAL KNOWLEDGE RATHER THAN PRACTICALITY?



EDUCATION AND SKILLS GAP Highlighting Vocational Training

"I remember, when I studied, it was about memorizing as opposed to thinking. The whole system needs to be overhauled. It's about thinking, adding, questioning. You're not allowed to question a teacher. How can that be?"

Mr. Tariq Al-Saffar,

Managing Director, Fortune Promoseven, Bahrain

TRAINING AND DEVELOPMENT

It is important to recognize that bridging the skills gap requires more than just reforming the education system represented in schools, high schools, and universities. It is also about reforming vocational education and training and introducing the notion of career development. 92% of Arab CEOs are aware of the importance of training for development, while 87% of CEOs view training and development as a tool to retain staff.

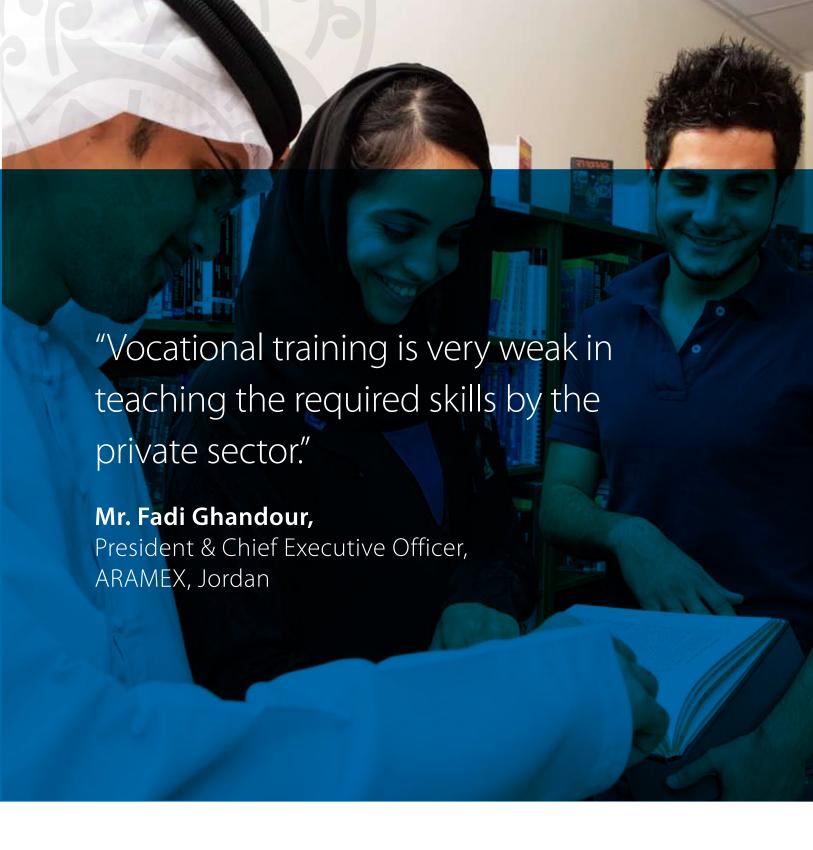
"The poor education system could be compensated by virtue of good and effective training, but having deficiencies in both the education system and training reflects negatively on the quality and skills of graduates."

Mr. Hesham Tawfik,

Chairman, Arabeya Online Brokerage, Egypt

This has historically been a major problem faced by government-provided training worldwide. The international trend towards market-oriented training systems gives an increasingly prominent role to the private sector.⁸ Globally, partnerships and strategic alliances between government, business and organized labor are important in improving the relevance and effectiveness of training programs.

 $^{^{8}}$ ILO (1998) "Strategic training partnerships between the State and enterprises", Employment and Training Papers (19)



A review of various international public-private training partnerships found that strong and genuine commitment to the process by the private sector is one of the major keys to the success of these partnerships.⁹

Furthermore, many CEOs claim that there exists negative perceptions associated with certain technical and vocational professions deemed socially inferior and unacceptable. This has resulted in many nationals tending to refrain from participating in related vocational and technical education and training. Instead, they choose to study disciplines which do not necessarily hold direct relevance or add value to the 'growth sectors' of the economy.



EDUCATION AND SKILLS GAP

Monitoring Ability

"Vocational training, in general, is in need of radical reform, and attention, this is attributed to the increasing lack in the labor market for such skilled vocationally- trained laborers."

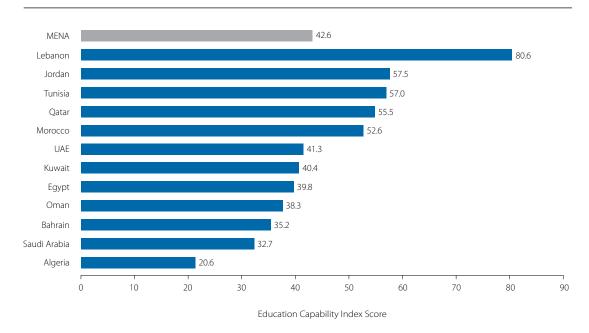
Mrs. Laila Maghraby,

Executive Director, Engineering Export Council, Egypt

EDUCATION CAPABILITY INDEX

The Education Capability Index¹⁰ represents CEO satisfaction levels regarding the education system, based on current quality, the adequate skills acquired by students upon graduating, and the ability of the education system to meet future market requirements, particularly over the next decade. The index takes into account schools and universities at every level, both local and foreign.

EDUCATION CAPABILITY INDEX



¹⁰ The Education Capability Index is calculated based on responses to three questions: the CEOs rating on the existing quality of local and foreign education institutions in their country, to what extent they feel that the education system in their country provides people with adequate skills to enhance the country's economy and their level of confidence towards the education system reaching standards required by the business sector in the next 10 years.





The regional average for CEO satisfaction in the quality of education system, its graduates and its future prospects stands at 42.6 points. Only a few countries lie above this regional average and they include Lebanon, Jordan, Tunisia, Qatar, and Morocco, all discussed shortly in further detail.

Two principal themes can be derived from this index. Firstly, there exists a serious need for improvements in education given that most countries lie below the education capability average. Secondly, the lack of skilled labor, due primarily to the quality of education, is of major concern to business leaders and a threat to sustainable economic growth going forward.

Lebanon is perceived to have the most trusted and highly valued education system in the region. On par with international standards and perhaps as a result of its strong historical ties with Europe, a culture of learning, knowledge accumulation and application has become deeply entrenched into the Lebanese social fabric.

Jordan is also perceived by business leaders to be strengthening its education system. The government introduced educational reforms a few years ago with a special focus on core subject areas like Arabic, Math, Science and English. New subject streams, such as Information Management, were introduced to help prepare students for positions in e-commerce and other computer-based professions. The new curricula are based on the transferable skills necessary for success in the private sector including communication, team work, analysis, synthesis of information and self-directed learning.¹¹

Tunisia, on the other hand, is one of the region's leading educational reformers. Educational reforms there attempt to shift from the information-based curriculum to a new curriculum focused on three competencies: knowledge, skills, and attitudes. Measures have also been taken to monitor and evaluate the implementation of reforms, as well as increase the number of teaching inspectors.12

Qatar's attempts to establish a knowledge-based economy have been reflected in the high levels of education confidence amongst business leaders. The country has attracted several top universities and created an education zone, referred to as Education City. Major reforms have also been implemented in public sector schools and universities, many of which have become independent and are now run by private companies.¹³

In Morocco, education and training are at the top of the political agenda whereby the country's national charter for education and training was implemented in 1999. The charter is responsible for major improvements especially in increasing female enrollment ratios both in urban and rural areas.14

CONFIDENCE IN THE FUTURE OF EDUCATION

The education system plays a crucial role with young people's 'employability' levels. Its role is to enhance and enrich young people with relevant skills and expertise, facilitating them in their job-search process and future career trajectories. If the educational system is capable of addressing the demand of the market with relevant supply of new youth human capital, the economy as a whole gains from a 'youth human capital dividend.'

World Bank (2007) The Road Not Traveled: Education Reform in the Middle East and North Africa

¹² World Bank (2007) The Road Not Traveled: Education Reform in the Middle East and North Africa

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EDUCATION AND SKILLS GAP CEOs want to be Engaged!

Contrary to this, a failure to address the needs of the market, can result in the education system producing a pool of youth whose human capital ends up becoming a liability for the economy.

In the Arab World 62% of Arab business leaders are confident that education levels in their respective country will reach the required standards within the next 10 years. Respondents from the Gulf tend to be the least optimistic in this regard, while those from the Levant are not surprisingly more optimistic.

80% of business leaders from Tunisia, 75% from Morocco and 74% from Lebanon confirmed that they are optimistic about the future of education in their countries. In the Gulf, it is interesting to note that 71% of CEOs in Qatar and 69% in Oman were confident that their education system will ultimately respond to business requirements. Comparatively, CEOs from Jordan are optimistic with 67% expressing confidence in current government reforms. Kuwaiti CEOs are amongst the most pessimistic with only 38% expressing the confidence that education standards will improve in the next 10 years.

Differences exist however from industry to industry. The most confident sectors are Financial Services (72%), TLS (68%) and Travel & Tourism (66%). This is followed by Engineering, Construction & Real Estate at 56%, Retail & Consumer Goods at 57%, ICT at 59%, and Entertainment & Media at 64%. In more technical sectors, industry leaders were less confident for instance Energy leaders were amongst the least optimistic at 54%. This may be explained by the lack of available schools and programs in this specific sector.

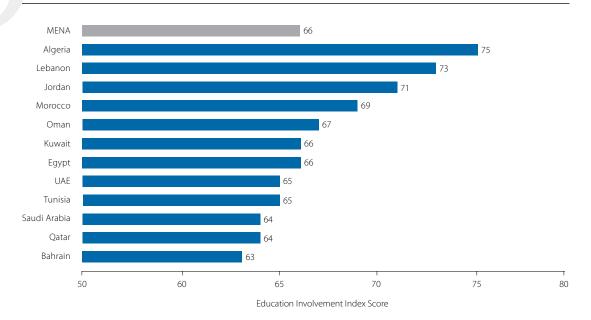
EDUCATION INVOLVEMENT INDEX

The Education Involvement Index¹⁵ at 66 points demonstrates a great willingness from the private sector to be involved in working with and improving the education system in the Arab region should the opportunity arise.

The sharing of knowledge through 'guest speakers at universities and educational institutions' was highlighted as a key area of involvement by 68% of business leaders, followed by 'offering courses to students' and 'mentoring', both at 66%. Becoming members of universities and investing in schools were the areas of least enthusiasm.

¹³ The Education Involvement Index is calculated on the basis of answers to the following questions: 1) How likely would your organization be to communicate your requirements to the educational system by Investing in / sponsoring schools, Having membership on university / school boards of directors, Participating in forums and educational conferences, Guest speaking at universities / educational institutions, Participating in career fairs, Mentoring students, Offering courses / graduate programs / internships? 2) Would you be willing to become personally involved in raising education levels in your country should the opportunity arise?

EDUCATION INVOLVEMENT INDEX



"In order to strengthen the skills, the universities should approach private sectors and invite managers to speak in their schools to educate people more practically."

Mr. M. B. Hamad,

General Manager, Adceco Group, UAE

In-depth interviews that followed the survey revealed that many Arab CEOs on the whole were willing to get involved in education and more specifically training.



EDUCATION AND SKILLS GAP

INVOLVEMENT BY BUSINESS LEADERS IN THE EDUCATION SYSTEM

According to survey findings, only 35% of Arab CEOs believe that the private sector in their country has successfully communicated its expectations to the education system. This is lowest in the Gulf at 31% and highest in the Levant at 48%. That said, approximately two thirds of Arab CEOs are willing to participate in making the necessary improvements to education based on the Education Involvement Index designed for this survey. This is more or less consistent across the region although CEOs in Algeria and Lebanon are more willing to become involved than the regional average.

The fact that most Arab business leaders expressed a willingness to participate in improving education is a foundation upon which to further build public-private cooperation. Experiences from various countries suggest that a genuine commitment from the private sector is a key element to developing successful public-private cooperation in education and training.

"As part of our ongoing reforms in our Higher Education National System, we have engaged in a long-term partnership with the private and public sector to rebuild curricula and diplomas. Year on year, we solicit the private sector and call upon business leaders to contribute, and together work on improving the curricula. We even have an agreement with the Tunisian Association for Trade and Commerce and other professional federations."

Dr. Ridha Methnani,

Chief of Cabinet, Ministry of Higher Education, Scientific Research & Technology, Tunisia



CEOS RECOMMEND

The following section is an overview of collective recommendations by CEOs to overcome the Arab human capital challenge. This is serving as an outline for a forthcoming set of comprehensive solutions and actions.

"There needs to be a Public Private Partnership (PPP) that looks at the major issues facing the education sector to evaluate, monitor, accredit and set a system of accountability."

Mr. Simon Karam,General Manager, Travo LLC, Oman

PUBLIC AND PRIVATE SECTOR COOPERATION

Arab business leaders indicate a clear mismatch between the skill set of new graduates and the requirements of prospective employers in the market. Survey results reveal that only 35% of Arab CEOs have communicated their needs to the education system, while 72% of Arab CEOs are willing to be involved in educational reform should the chance arise.

CEOs point to three types of mismatches regarding fresh graduates:

First, there is a quantity mismatch in terms of insufficient supply, a phenomenon largely confined to the Gulf States. Second, there exists a quality mismatch between soft¹⁶ and technical skills of new graduates, and the skills required by the private sector. Third, there is a structural mismatch between the subject matter of the degrees graduates are obtaining, and the requirements of the current and future job market.

In order to combat these mismatches, top CEOs recommend various areas for public and private sector cooperation in the education system:

"We must put an end to the existing barrier of mistrust between the public and private sectors, which prevents us from having an open dialogue."

Mr. Mohamed Kabbaj,

Wali of Grand Casablanca, Former Minister of Finance, Chairman, Lafarge Maroc, Morocco

Educational Reform Strategies

CEOs recommend establishing committees comprised of government, education, and business representatives to:

- Set national education reform strategies
- Advise on curricula redevelopment
- Set accreditation standards for educational institutions
- Formulate national vocational training strategies

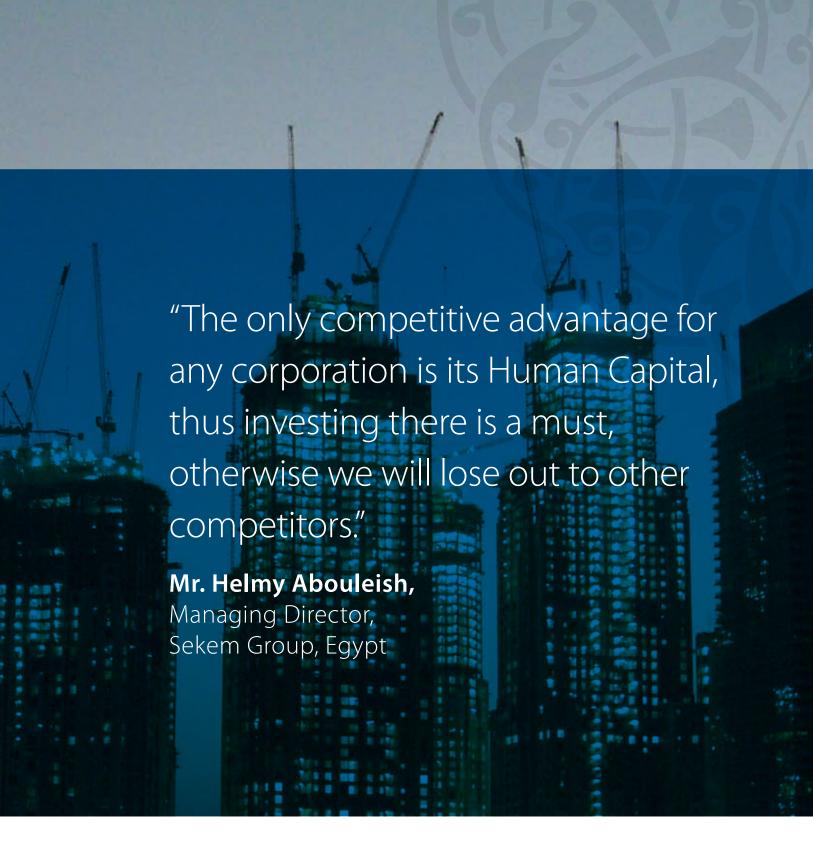
Linking Industry to Higher Education

Almost half the CEOs surveyed expressed interest in serving on the board of a university or school. In this regard, they recommend:

 Representation of industry leaders on public university boards and department committees, to advice on curricula and programs offered to meet current and future market needs

Two-thirds of CEOs interviewed are willing to be involved with universities through creative mechanisms and recommend the following joint programs:

- Internship and apprenticeship schemes
- Mentoring programs
- Guest speaker platforms
- Offering lectures



Citing the limited career planning mechanism for students, CEOs suggest involving industry with university career planning departments to ensure supply and demand between degree programs and the requirements of the industry job market. CEOs express their involvement in:

- Career fairs
- Participation in forums and educational conferences

National R&D Strategy Formulation

Arab CEOs identify insufficient R&D programs between governments, industry and higher education institutions, limiting the research potential and competitiveness of regional universities. To address this deficiency, CEOs recommend devising national R&D strategies that promote joint research initiatives between industry government and universities, in sectors and areas of strategic importance and relevance to the economy, which may include actions such as:

- Identifying key areas of research that are strategic for the economy
- Develop a government fund to invest in joint R&D projects
- Develop a legal infrastructure for joint intellectual property
- Develop incentives and tax breaks for industries to fund R&D projects with universities
- Develop incentives for foreign companies to invest in joint R&D ventures with local companies and universities

EDUCATION REFORM RECOMMENDATIONS

The vast majority of Arab CEOs consider improving education as paramount to closing the skills gap. Low CEO satisfaction levels, related to the education system in the region, is evident from the Education Capability Index which stands at a mere 42.6 points, with the exception of Lebanon at 80.6 points. As a whole, CEOs' rating of the education system in their respective countries, compared to international standards, is substantially low.

On average, less than a third of Gulf and North African CEOs feel that their education system is on par with international standards. In contrast, more than 60% of Levant CEOs feel that the local education system meets international standards.

Nearly two-thirds of CEOs across the Arab World feel that the private education system provides standards superior to the public system. In order to address the apparent weaknesses in the national education system, Arab CEOs have come up with the following recommendations.

CEOS RECOMMEND

School System and Curricula

CEOs have strong reservations regarding the quality and relevance of curricula being taught and on the existent appraisal methods which are largely based on memorization. In this regard, CEOs recommend:

- Implementing international educational best practices in the national schooling system, while maintaining Arab values, a view held by 90% of Arab CEOs interviewed
- Change the emphasis of curricula from being largely 'theoretical' based, to one that has a stronger 'practical application' to the job market needs
- Shift from memorization methods of appraisal to one that focuses on developing critical and analytical thinking skills

Teachers

- Restructure the screening and selection process of teachers to one that ensures a high quality control mechanism
- Revisit teachers' remunerative packages to attract high caliber applicants
- Introduce a new approach to teacher pedagogy that emphasizes on developing student skill sets that are transferable to the job market
- Improve the cultural perception of the teaching profession to one which is highly honored and respected by society

Accreditation

- Introduce independent accreditation systems and quality control mechanisms that are based on international benchmarks at all education levels. 86% of Arab CEOs feel that independent external auditing is necessary to reach quality standards
- Establish a university ranking system at the national and regional level to identify the top universities and encourage positive competition

Universities

- Undertake in-depth research on the current and future market demand of university programs and fields of expertise
- Conduct in-depth research on the deficiencies of soft and technical skills by subject area, in relation to market requirements, and adjust course offerings and curricula accordingly
- Measure the performance of university professors, based on the value-added knowledge they create through research
- Promote foreign partnerships and exchange programs with international universities and educational institutions
- Increase continuing education and executive programs

"What is required is a symbiotic relationship between universities and the private sector."

Mr. Fadi Ghandour,

President & Chief Executive Officer, ARAMEX, Jordan

Vocational Training

- Evaluate and undertake research on current and future market needs for vocational professions and relevant skills, and develop a national vocational training strategy accordingly
- Promote partnerships between industry and sector-specific training centers
- Increase emphasis on establishing new and developing existing vocational training institutions in line with international standards
- Establish monitoring systems to ensure that quality standards are maintained
- Create incentives for the private sector to invest technically and financially in training centers
- Address the negative cultural perceptions about vocational professions

CEOS RECOMMEND

LABOR NATIONALIZATION

Survey results reveal that a vast majority of Gulf CEOs believe imposing compulsory nationalization quotas will not enhance the performance of their company, while only 41% believe such quotas will benefit the economy in the long run.

A major concern indicated regarding these quotas is the negative effect on company productivity and competitiveness due to 'forcing' corporations to recruit based on 'numbers' rather than 'skills'. In cases where quotas are based on professions, they raise the challenge for companies to fill such positions, when the number of nationals in such fields is insufficient.

Gulf CEOs recommend that nationalization policies be part of the broader labor strategy aligned with current and future growth sectors of the economy, and that the subsequent demand of professions be matched with the supply of graduates from the education system.

CEOs across the board stress that nationalization initiatives must have a strong training component attached to them, in order to be effective. In this regard, CEOs recommend the creative design of government sponsored training funds, educational programs, and incentives or tax breaks to encourage companies to train and invest in nationals.

"Maybe a better way to tackle Nationalization quotas is to create a fund that is financed via a percentage of the private sector revenues and be directed towards Human Capital Development."

Mr. Abdullah Al Saleh,

General Manager, Ministry of Foreign Trade, UAE

CLOSING WORDS

The *Arab Human Capital Challenge* demonstrates the region's economic growth over the last decade has not coincided with equally buoyant labor and human resource development. It explains that solid and durable region-wide development will only persist, therefore, if concrete measures are swiftly introduced.

Key workplace skills such as communication, teamwork, analytical skills and innovative thinking are lacking, especially in the Gulf. The survey also reveals that finding sufficient quantities of skilled labor continues to be the greatest strategic challenge to Arab businesses. This challenge is most pronounced in the Gulf and must be carefully managed.

Enhancing the quality of education is perceived to be an important strategy for closing the skills gap with improved teacher training considered a top priority in this regard. Given the urgency of the situation, Arab business leaders expressed a strong willingness to participate in the enhancement of education at all levels and a strong desire to build public-private cooperation.

In-depth interviews with the region's most influential business leaders revealed several areas of particular interest. The most recurrent theme was the need for government to provide the private sector with incentives to invest in human capital, especially in terms of training. A large proportion of business leaders also stressed the need to strengthen ties between universities and the private sector through the introduction of programs designed to cater to specific market needs. The government could in turn establish a mechanism for monitoring targeted results in these areas.

Labor challenges aside, it is also important to note that domestic political stability and global terrorism are perceived to be viable threats to Arab business, particularly in the volatile Levant region. Developing infrastructure is also considered to be a top priority in the resource-poor countries of the Levant and North Africa.

Overall, the research clearly and very boldly demonstrates that without concrete changes today, regional growth and development could be severely hindered.

Our appreciation goes to the 587 CEOs who participated in the survey for their time and contribution. In addition we would like to thank the following CEOs and senior representatives for their in-depth views and insights:





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The Mohammed bin Rashid Al Maktoum Foundation is an initiative spearheaded by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister and Ruler of Dubai who has committed a personal endowment of \$10 billion towards the development of a knowledge-based society in the Arab region. The Foundations mission is to empower future generations with the ability to devise sustainable homegrown solutions to regional challenges. It intends to achieve this by spreading knowledge throughout the region, thereby fostering ideas and innovation.

The Foundation is dedicated to building a core base of talented and highly educated future leaders in government, private sector and civil society. It intends to meet these objectives by elevating the Arab world's research base, by promoting knowledge creation and to raise the infrastructure of higher education within the region to international standards. Furthermore, the Foundation is committed to ensuring that the skills set of young people can be utilized in productive employment opportunities, promote a vibrant entrepreneurial spirit and culture amongst youth, and equip them with the necessary tools to succeed in these endeavors.

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