Arab youth employment in the MENA region and top industries outlook

August 2018

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Introduction

Introduction | Overview of INJAZ Al Arab

INJAZ is an non-profit organization that aims to promote youth education and training in the MENA region.

Establishment

- INJAZ was established in 1999 as a non-profit organization that aims to promote youth education and training in the Arab World under three pillars: workforce readiness, financial literacy and entrepreneurship.

Purpose

- INJAZ is focused on developing young people's ability to contribute to their nation's economic development.

INJAZ Key Activities

- Form partnerships with organizations to provide mentorship opportunities to Arab youth.
- Host training programs to develop the required skills of Arab youth, enabling a smoother transition to their job after graduation.
- Provide entrepreneurship training programs for Arab youth to help them develop their business skills and to contribute to society.
- Support Arab youth in launching their startups by providing training, funding and incubation.
- Conduct research to implement programs and initiatives that support youth employment.

Achievement

- INJAZ is the only non-profit organization in the region that harnesses the mentorship of business leaders to inspire cultural entrepreneurship and business innovation among Arab youth.
- INJAZ was named one of the top 100 NGO's in the world by Global Journal for two consecutive years, 2012 and 2013.
- INJAZ has helped over 2 million students through entrepreneurship training opportunities.
- INJAZ is a member of Junior Achievement, the world's largest and fastest growing youth business organization.

Source: INJAZ website

Introduction | Overview of Expand Your Horizon (EYH)

EYH is a joint initiative by INJAZ and its partners to encourage Arab youth to realize their potential by a career in the private sector.

EYH Purpose

EYH aims to boost employment rates by educating youth on the benefits of jobs in the private sector and entrepreneurship opportunities in the Middle East and North Africa.

Role of INJAZ in EYH

INJAZ supports Arab youth's engagement in the private sector through EYH. EYH is an initiative that targets the deficiencies of the education system, and empowers youth to solve unemployment by creating a greater understanding of the opportunities available to them.

EYH Objectives

- Encourage Arab youth to consider different career paths and focus on developing the skills needed in trending industries.
- Provide enough information for students, youth and families to make well informed career decisions.
- Facilitate collaboration between the media, private sector, NGOs and students to boost presence and awareness of INJAZ and its industry partners.

Role of Partners

Partners commit their time and resources to provide valuable hands-on work experience to Arab youth. Partners also launch media campaigns to educate youth about trending industries and possible opportunities. Some participants offer internships in conjunction with their campaign.

Source: INJAZ website

Introduction | Objectives of this report

In line with INJAZ and EYH's objectives, and as the research partner, Deloitte developed this report to provide highlights on Youth employment in the region with an overview of several emerging industries.

This report provides an overview of…

- Arab Youth employment in the MENA region.
- Banking, Hospitality, Media, Telecommunication, Pharmaceutical and Technology industries.
- Youth Perception on Employment and on Internships.
- The Future of Work.

Before going into the analysis, it is important to define the following terms:
(more information on the following slides)

Arabs — **Talent** — **Youth** / **Millennials**

Introduction | Defining Arabs

The MENA region hosts a rich blend of Arab nationals and expatriates; hence, defining "Arabs" cannot be limited to Arab passport-holders only.

EYH Definition of Arabs

- EYH defines Arabs as individuals of any nationality who currently reside in an Arab country.
- Since EYH aims to enhance employment of Arab youth in the Middle East and North Africa (MENA) region, Arab passport-holders living outside an Arab country are not considered.

Sample Arab countries included in this report

Levant

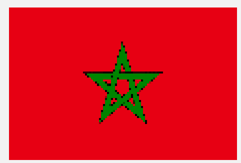

Lebanon


Palestine

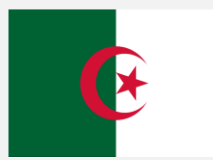

Jordan

North Africa


Tunisia


Morocco


Egypt


Algeria

Arabian Peninsula


Yemen


United Arab Emirates


Saudi Arabia


Oman


Kuwait


Bahrain


Qatar

** With the exception of Yemen, the above countries are part of the GCC (Gulf Cooperation Council)*

Source: INJAZ website. Expand Your Horizon website

Introduction | Defining youth

Various definitions for "youth" exist, but for the purpose of this report, youth is defined as individuals between the ages of 16 and 25.

Youth can be defined as the age span at which an individual can enter the labor market. Given that nowadays many individuals delay their entry to the labor market, the statistical definition no longer holds. **– International Labor Organization (ILO)**

Youth is a fluid category, often indicated as an age at which an individual may leave compulsory education to find his/her first job. For statistical purposes youth has been defined to be someone between the age of 15-24 years. **– United Nations (UN)**

For the purpose of this research, we will use INJAZ's definition of youth. Youth is defined as a high school and/or university graduate between the age of 16 and 25.

Source: INJAZ website. Expand Your Horizon website

Introduction | Defining talent

All individuals are talented; they just need to be engaged and trained in order to discover what their talent is.

Talent comes in many shapes and sizes!

What is "Talent"?

- Talent is a natural aptitude or skill that an individual has to perform something relatively well compared to his/her peers.
- Contrary to popular belief, all individuals are talented; they just need to be engaged and trained in order to discover what their talent is.
- An individual may become aware of his/her talent through continuous experiences in areas that naturally attract him/her.
- Once discovered, talent should be continuously fostered and developed in order to deliver the required performance and results.

Educated individuals:

- Currently attend or previously attended educational institutions.
- Have a formal certificate or degree in a specific field.
- Acquire learning in various disciplines on an ongoing basis.
- May have an area of expertise, but that does not necessarily mean that they are talented in that field.

Educated individuals

versus

Talented individuals

Talented individuals:

- Have an innate ability to perform certain tasks better than their peers.
- Are aware of that ability and develop it over time through trainings and experiential learning opportunities.

Introduction | Defining millennials

Millennials, born between 1980 and 2000, represent a large portion of Arab youth and have different work preferences than those of previous generations.

EYH Definition of Millennials

- EYH defines millennials as individuals born between 1980 and 2000 and who reached adulthood in the year 2000.
- Millennials, also known as Generation Y, follow Generation X which includes individuals born between 1960 and 1980.
- The number of millennials is increasing in every industry in the Middle East and a growing number of them currently occupy middle to senior management positions.
- Since millennials represent an increasing share of the workforce, they are no longer seen as the leaders of tomorrow but increasingly as the leaders of today.

Millennial Difference from Previous Generations

- Millennials are different from the previous generation, which grew up without social media, unified communications, smartphones or the internet.
- Millennials are motivated and increasingly engaged through continuous learning and development.
- Millennials require recognition that is not necessarily financial. Also, they look for more social and cultural activities.
- Millennials, in general, express little loyalty to their current employers due to the lack of development of leadership skills and feelings of being overlooked in their organizations.
- Millennials often put their personal values ahead of organizational goals and several have shunned assignments (and potential employers) that conflict with their beliefs.

Source: Expand Your Horizon website; Deloitte Resources, The 2016 Deloitte Millennial Survey (2016)

Introduction | Defining employment and unemployment

Employment and unemployment rates vary according to a country's or region's demography and economic environment.

Defining Employment

- For an individual to be counted as employed, he/she should:
  - Be above a specific age, in Arab region above the age of 16; and
  - Work for pay, profit or family gain for a specified period of time (differs by country).
- Employment in a country or region is measured through an employement rate.

Defining Unemployment

- For an individual to be counted as unemployed, he/she should:
  - Be above a specific age, in Arab region above the age of 16.
  - Be without continuous paid or unpaid work for a specified period of time (differs by country).
  - Be actively seeking employment opportunities.
- Unemployment in a country or region is measured through an unemployement rate.

Defining Youth Employment

Youth employment specifies the number of youth (i.e. between the ages of 16 and 25) who work for pay, profit or family gain for a specified period of time.

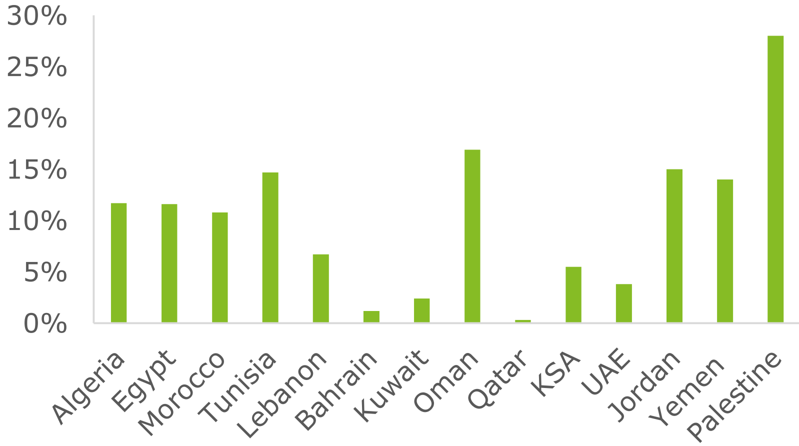
Youth employment can be measured by youth employment-to-labor force ratio.

Overview of youth employment in the MENA region

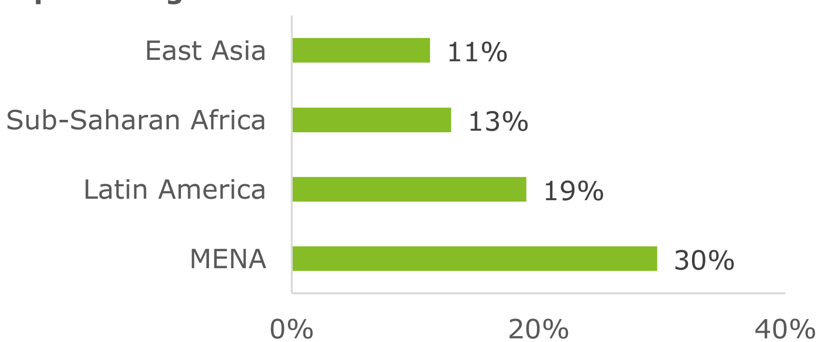
Overview of youth unemployment in MENA region

MENA's average youth unemployment rate is still considered among the highest in the world with a 2% increase from last year's rate.

Unemployment rate in the MENA region | 2017
In percentages



Comparison of youth unemployment rates by region | 2017
In percentages



Source: The World Bank. International Labour Organization, ILOSTAT database (2017)

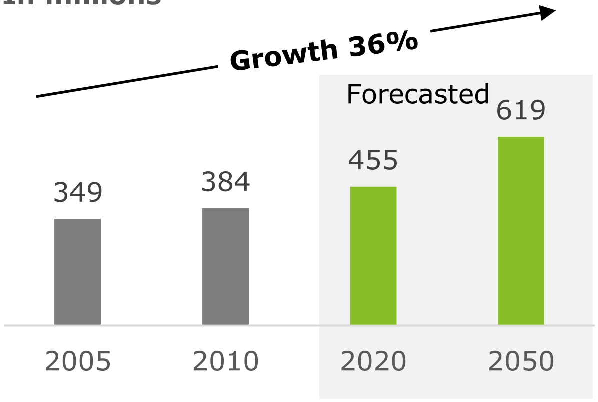
Key Findings

- **MENA unemployment rate:** The average youth unemployment rate in the MENA region is 30% (2% higher than last year's rate), which is considered among the highest in the world.
- Oman has the highest unemployment rate (after Palestine - covering West Bank and Gaza); in contrast, Qatar has the lowest unemployment rate.
- North Africa and Levant countries have a higher average youth unemployment rate than GCC countries mainly for the following reasons:
  - Economic and political instability
  - Low levels of private sector development
  - Limited employment opportunities
- **Gender gap:** Women youth unemployment rates tend to be higher than the average youth unemployment rate in the MENA region. A Bayt.com survey in 2016, found that 43% of women youth are unemployed.
- **Age gap:** Youth unemployment rate is almost five times higher than the unemployment rate for older adults.

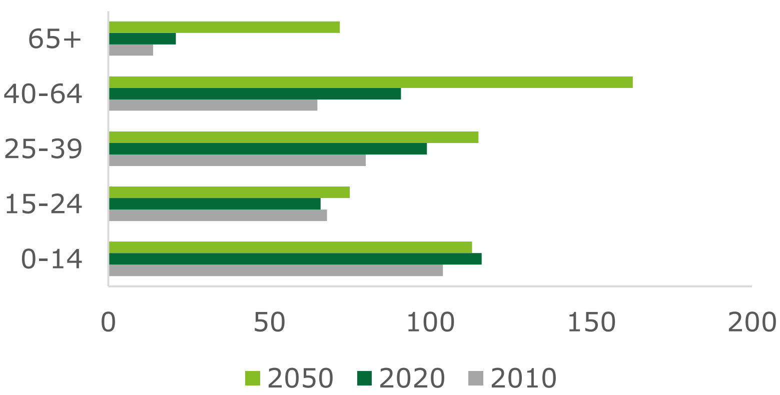
Overview of MENA's demographics

MENA's population is projected to increase by more than a quarter by 2050, and a significant proportion of that population will be of prime working-age*.

MENA's population growth | 2005 - 2050
In millions



MENA's population age structure | 2010 – 2020 - 2050
In millions



Key Findings

- **Population increase:** MENA's population has increased by 10% from 2005 to 2010 and is projected to increase by 36% by 2050.
- **Young population:** MENA's population is a young population; with 31% being under the age of 14.
- **Working-age:** The 25-39 age group, which constitutes the largest proportion of workforce, is expected to increase significantly between 2010 and 2020 (24%) and will increase by 16 million in 2050.

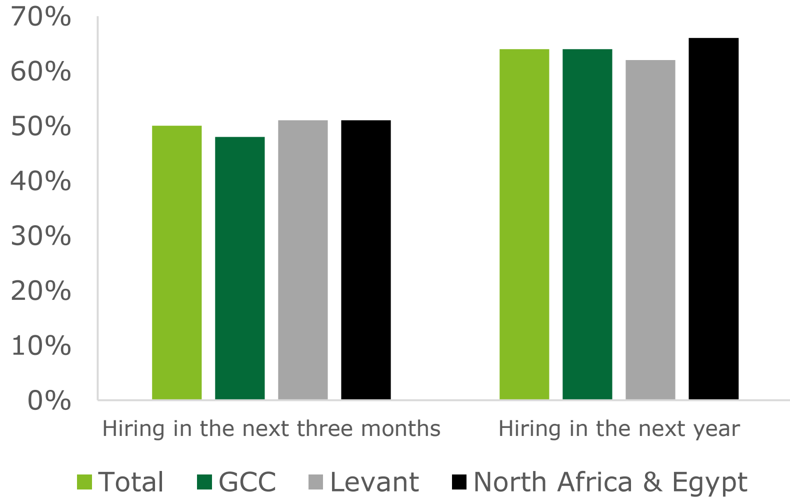
** Prime working age population is the population aged between 25 and 54 years old*

Source: UN, UN Population Division (2005)

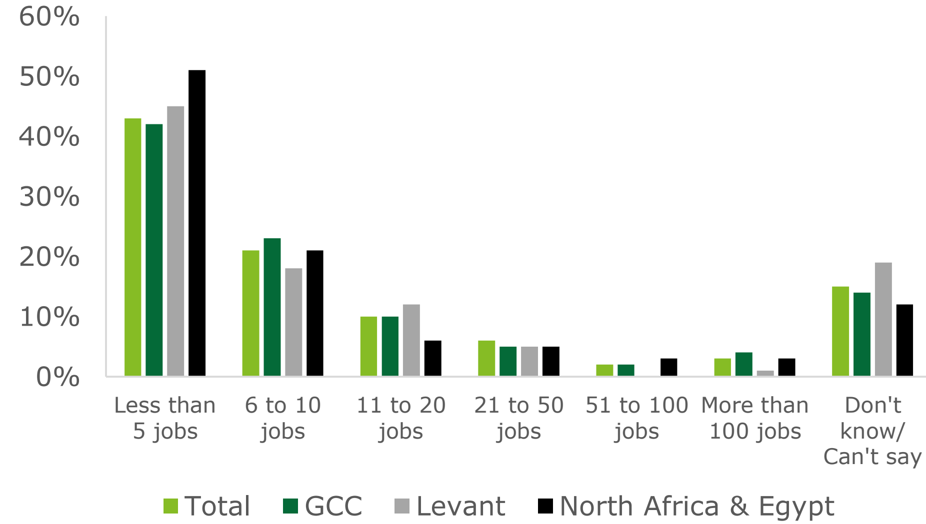
Overview of MENA's job opportunities

The working category age population's growth with limited job opportunities constitute an obstacle for the economic growth.

Companies hiring | July 2017
In % of companies



Approximate number of jobs hiring for | July 2017
In % of companies hiring in the next 3 months



Key Findings

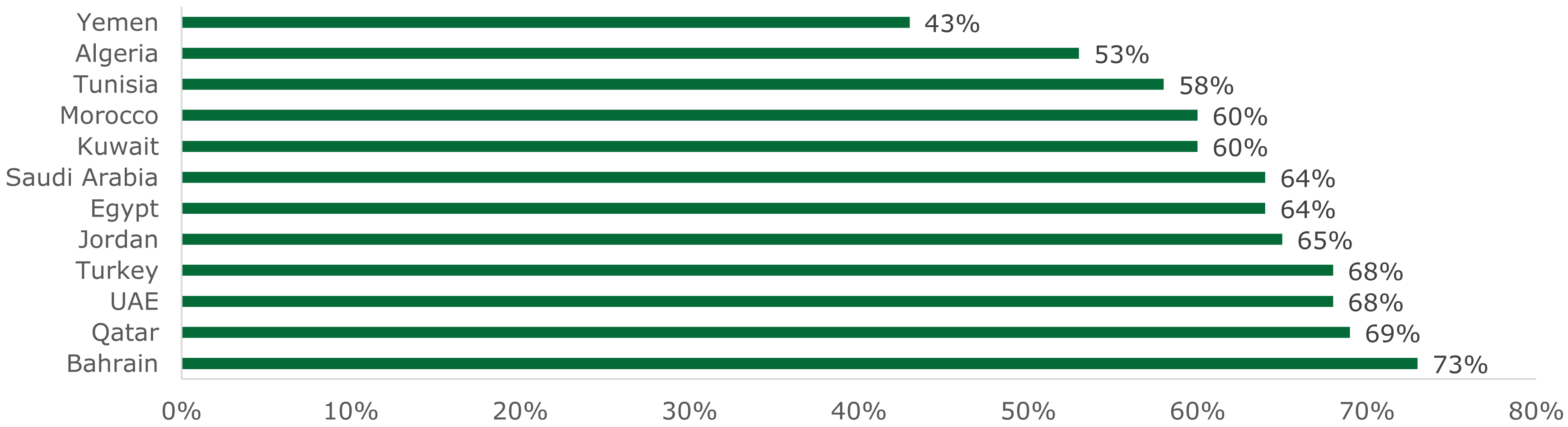
- North Africa & Egypt have a high potential to hire in the next year, 66% of its companies are considering to hire from which 43% are willing to hire for a maximum of 5 jobs.
- The growth of the prime-working age population and the limited opportunities for jobs projects a rise in the unemployment rate.

Source: Bayt.com and YouGov, The Bayt.com Middle East Job Index Survey (July 2017)

MENA's human capital optimization

Opportunities exist for the MENA region to optimize its human capital potential.

Human capital optimization in MENA | 2016
Score (0-100) scale



- The World Economic Forum's Human Capital Index—which measures the extent to which countries and economies optimize their human capital potential through education and skills development and its deployment throughout the life-course—finds that the MENA region as a whole currently only captures 62% of its full human capital potential (compared to a global average of 65%):
  - 73 to 68% in high-income Gulf countries such as Bahrain, Qatar and the United Arab Emirates (UAE)
  - 64 and 58% in post-Arab spring economies such as Egypt and Tunisia, respectively
  - Less than 50% in fragile and conflict-affected countries such as Yemen

Source: World Economic Forum, The Future of Jobs and Skills in the Middle East and North Africa (May 2017)

Main Reasons for youth unemployment in MENA region

Unemployment in the MENA region as a whole is fundamentally the result of the lack of economic growth partnered by a set of key barriers for employment.

Mismatch of skills

- Graduates in the MENA region are not fully equipped with the proper soft and technical skills because the education systems are not completely in line with market requirements.

Competition from more qualified expatriates

- Expatriates from more developed economies are usually preferred over nationals because they are perceived to be more qualified.

Youth university major preferences

- There is a growth in the level of education in the MENA region; however the majority of the Arab youth are considering majoring in business rather than majoring in Science, Technology, Engineering and Math, which are necessary nowadays.

Limited employment opportunities for women

- Despite the gradual involvement of women in the labor force, the MENA region still have the highest unemployment rates in the world due to cultural reservations resulting in discrimination through education and employment opportunities.

Source: The European Investment Bank, European Bank for Reconstruction and Development (2018); The World Bank Group, What's Holding Back The Private Sector In MENA? (2016); Deloitte Analysis, Demographic and Economic Material Factors in the MENA Region (2017)

Main Reasons for youth unemployment in MENA region

Unemployment in the MENA region as a whole is fundamentally the result of the lack of economic growth partnered by a set of key barriers for employment.

Preference for public sector jobs

- Arabs, mainly in GCC countries, prefer to work in the public sector because of the short working hours and relatively higher salary packages despite their stagnation due to the oversized public sector.

Political instability

- The Arab spring, ongoing wars and political instabilities in the MENA region have negatively affected the economic growth and led to its stagnation making it difficult to generate employment opportunities.

Drop of oil prices

- The drop of oil prices pushed the MENA oil exporter countries to cut their spending in order to control their budget impacting negatively the Arab employment.

Unsecure job opportunities

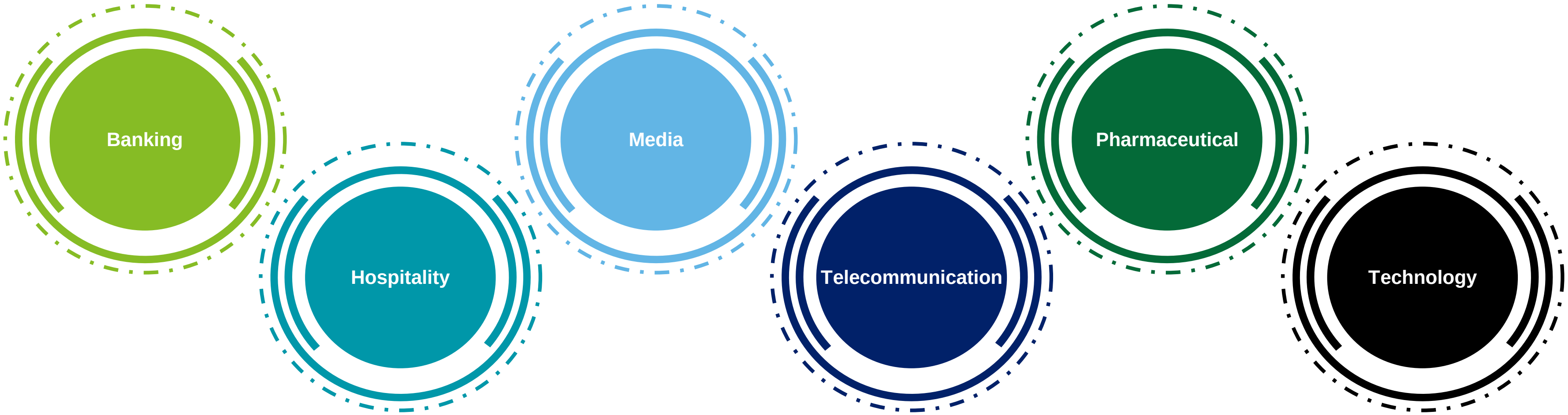
- There is no employer-sponsored permanent residency in the GCC, making it difficult for Arab youth who want job security in the GCC.

Source: The European Investment Bank, European Bank for Reconstruction and Development (2018); The World Bank Group, What's Holding Back The Private Sector In MENA? (2016); Deloitte Analysis, Demographic and Economic Material Factors in the MENA Region (2017)

Overview of the Banking, Hospitality, Media, Telecommunication, Pharmaceutical and Technology Industries

Overview of industries that are increasingly becoming target markets for youth employment in the MENA region

An industry can be defined as the aggregate of technically-aligned activities/ organizations who produce similar goods and services.



Overview of the Banking Industry

Banking

- The banking industry is mainly composed of financial institutions that provide banking services.
- The principal services offered relate to handling cash, investments, extending credit, transferring and other financial transactions.
- The financial institutions provide a safe place in securing additional cash and credit as well as loans including home mortgages, business loans.
- Key banking organizations in the Arab world include **Credit Agricole, Commercial Bank of Dubai, Qatar National Bank, Bank of Jordan, HSBC Egypt,** etc.

2018 Banking Outlook

For banks globally, 2018 could be a pivotal year in accelerating the transformation into more strategically focused, technologically modern, and operationally agile institutions, so that they may remain dominant in a rapidly evolving ecosystem. Main themes critical for bank's long-term growth:

- **Customer Centricity:** Long-term sustainable growth in the banking industry seems only possible with a radical departure from a sales- and product-obsessed mindset to one of genuine customer centricity, and further rationalization of strategies to target the right markets, customer segments, and solutions.
- **Fintechs and big techs:** Fintechs continue to lead innovation in the banking industry by sharpening their focus on customer experience. Banks face a number of choices: replicate what fintechs are doing, respond with equally innovative solutions, become more symbiotic and less competitive, or pursue a mix of these strategies that fit their unique capabilities and market positions.
- **Cyber risk:** The potential for cyber risk has been increasing with greater interconnectedness in the banking ecosystem, rapid adoption of new technologies, and continued reliance on legacy infrastructure designed for a different age.

Source: Deloitte Resources, 2018 Banking Outlook – Accelerating the Transformation (2018)

SWOT analysis for the Banking Industry

Arab youth should leverage the strengths and address the weaknesses to cope with opportunities and threats in the banking industry.

Strengths

- The MENA region became at the center of the growing markets in the banking sector.
- Availability of skilled professionals since the majority of the Arab youth are considering majoring in business.
- A large number of Middle East expatriates contribute in the development of the MENA funds; therefore encouraging the adoption of expansion strategies in the banks and creating more job opportunities.

Weaknesses

- The intense scrutiny by regulators and the established laws and regulations are creating barriers for the banks to meet the fast-moving customers' behavior.

Opportunities

- Aggressive expansion of wealth management services creating more job growth opportunities.
- Customers embrace and seek nowadays a fully integrated digital banking experience which necessitates very specific technical skills.
- Need for critical skills specialized in risk and compliance as banks in the region are constantly looking to hire people to properly manage their risk frameworks with the challenging MENA environment.

Threats

- The drop of oil prices pushed the MENA oil exporter countries to cut their spending in order to control their budget; as a result the capital flows decreased.
- The Arab spring, ongoing wars and political instabilities in the MENA region have negatively affected the economic growth and led to its stagnation making it difficult to generate employment opportunities.

Source: Deloitte Analysis, Demographic and Economic Material Factors in the MENA Region (2017); Deloitte Analysis

Overview of the Hospitality Industry
Hospitality

- The hospitality industry is mainly composed of hotels, restaurants, event planners and tourism agencies.
- Hotels and restaurants constitute the largest segments of the hospitality industry.
- Activities in hospitality industry involve heavy customer service and interactions for the provision of services.

- Key hospitality organizations in the Arab world include **Marriott Hotels & Resorts, Starwood, Intercontinental, Rotana** etc.

2018 Hospitality Outlook

While strong post-recession gains appear to be cooling off, the hotel sector is projected to sustain strong 5–6 percent global growth throughout 2018, setting up the industry to hit a record-breaking in gross bookings. While the outlook for the hotel industry is generally positive, brands who fail to innovate risk losing market share.

- **Innovation disruptors:** Innovative organizations, such as Airbnb, are attracting business and tourist travelers away from traditional hotels. The rising usage of internet through smart devices has forced hotel operators to tailor their strategies accordingly.
- **Digital:** Digital booking is changing the way individuals manage their travel arrangements; the increase in personal booking and unification of service platforms require less interaction with different parties hence a decrease in the personal dedicated for travel agents.
- **Customer Centricity:** With just a few swipes in a travel app, today's consumers can compare more hotel and private accommodation options than ever before. Along with unprecedented choice, however, come unprecedented expectations, and a traveler that does not favor "run-of-the-mill" hotel experiences. With hotel reviews and virtual tours at their fingertips, travelers can easily sniff out "big-box" properties that fail to offer something truly unique and memorable.

Source: Deloitte Resources, 2018 Travel and Hospitality Industry Outlook (2018)

SWOT analysis for the Hospitality Industry

Arab youth should leverage the strengths and address the weaknesses to cope with opportunities and threats in the hospitality industry.

Strengths

- Citizens of the MENA region have a reputation of being hospitable and welcoming to tourists and travelers.
- There is an increased interest and drive for hospitality entrepreneurship among Arab youth by providing alternatives to expensive hotels and unhealthy food.

Weaknesses

- Arab youth, particularly in the GCC, lack fluency in languages other than Arabic and perceive a job in the hospitality industry as not prestigious.
- Qualified Arab youth value work-life balance and do not want to work overnight shifts.
- The hospitality industry typically offers lower starting salary than other industries, particularly public sector, technology and oil and gas.
- Arab youth lack vocational training opportunities to effectively prepare for a job in the hospitality industry.
- Youth are unaware of job opportunities.

Opportunities

- Several major events will be organized in the GCC including Expo 2020 and Qatar World Cup 2022, thus, increasing hospitality job opportunities for Arab youth.
- GCC countries, particularly the UAE and Qatar, are putting an increased focus on attracting tourists, increasing the need for hospitality talent.
- The hospitality industry in some North Africa and Levant countries is slowly picking up, after navigating the Arab Spring and other political instabilities.

Threats

- The relatively weak economic and political situation and ongoing wars have decreased the number of international tourists to the MENA region, negatively impacting the hospitality industry and available jobs.
- Innovative hospitality organizations such as Airbnb are competing with traditional hotels to attract travelers.
- Digital booking is changing the way consumers manage their travels, accommodation and flights; requiring less human interactions.
- Perception among Arab youth that hospitality jobs are more suitable for women.

Source: Deloitte Resources, 2018 Travel and Hospitality Industry Outlook (2018); Deloitte Analysis

Overview of the Media Industry

Media

- The media industry is mainly composed of TV channels, newspapers, publishers, and social media providers.
- A major technological shift is currently happening in the media industry whereby news and media content is being provided online rather than on traditional media (e.g. paper newspapers versus online content).

- Key media organizations in the Arab world include **MBC, Ooredoo, Facebook, Twitter,** etc.

2018 Media Outlook

The total number of online media subscriptions, as well as the average number of subscriptions per individual and household, should grow by at least 20 percent in 2018 and continue to increase in the medium term. This is a positive development for the media industry.

- **Decline of traditional media and growth of e-media:** Traditional media organizations, those which include print, TV and radio, are either having to reinvent themselves or go out of business. They currently face fierce competition from free online news sources and alternative channels (e.g. Netflix, legal and illegal streaming, etc.). Consumers are preferring to receive their information through e-media channels which are faster to access and more frequently updated, causing the decline in the use of traditional media.
- **Emphasis on social media:** Organizations are understanding the power of social media to communicate and build relationships with their customers through the different available platforms. This is leading to a rise in the demand of social media specialists.

Source: Deloitte Resources, 2018 Technology, Media and Telecommunication Predictions (2018)

SWOT analysis for the Media Industry

Arab youth should leverage the strengths and address the weaknesses to cope with opportunities and threats in the media industry.

Strengths

- Arab youth are highly proficient in the use of social media platforms.
- Social media penetration is growing rapidly among Arab youth. According to a 2017 survey, around 68% of Arab youth use Facebook and Whatsapp on a daily basis, 50% use Youtube, 48% use Instagram and 37% use Twitter.
- Arab youth use social media channels to portray their opinions and influence others. There are several highly-rated blogs and influencers in the MENA region.

Weaknesses

- Arab youth, particularly in the GCC, lack fluency in languages other than Arabic.
- There are cultural reservations regarding women working in media, censorship, and levels of free speech. Those potentially discourage Arab youth to work in traditional media.

Opportunities

- Social media and online media platforms are tying to dominate online content/news. This increases the demand for Internet Publishers and Editors.
- Organizations are understanding the power of social media to communicated and build relationships with their customers. This has increased demand for Social Media and Marketing Specialists.

Threats

- The media industry is in a transition phase where it is trying to compete with online media providers. This negatively affects Arab youth employment chances in traditional media organizations.
- There is a widespread decrease in the interest for traditional media channels. A 2017 survey found that 35% of Arab youth get their daily news using Facebook, against 31% from other online new sources, 30% from TV channels and 9% from newspapers.

Source: Deloitte Resources, 2018 Technology, Media and Telecommunication Predictions (2018); arabyouthsurvey.com, Arab Youth Survey (2017); Deloitte Analysis

Overview of the Telecommunications Industry

Telecommunications

- The telecommunication industry is mainly composed of companies that provide means of communication to businesses, households and individuals.
- The industry includes telecommunications/ telephone companies, internet service providers, cable / satellite companies, etc.

- Key telecommunication organizations in the Arab world **include Etisalat Gro., Vodafone, Orange Group, Oreedoo, SAMA Telecom**, etc.

2018 Telecommunications Outlook

Deloitte Global predicts that revenue growth for the industry is of critical importance in 2018. Revenue yield on data services (revenue per bit consumed) continues to decline as consumers use more and more data, with static or declining monthly bills. Hence it is critical to identify rapid investment opportunities across the telecom portfolio.

- **Internet of Things (IoT):** Experts expect IoT to become a critical engine for the future growth. One of the most successful IoT applications globally thus far has been the connected car. Potential for IoT growth also includes the connected consumer, and the broader universe of connected things with applications such as connected home monitoring and control, entertainment, wearables, and more.
- **Secondhand smartphones:** This also represent an area of potential growth in the telecommunications industry. Deloitte Global predicts that by the end of 2030, penetration of smartphones among adults in developed countries will surpass 90 percent (five percentage point increase over 2018). Smartphones sales will be 1.85 billion per year in 2023 (equivalent to over five million units per day).
- **Augmented and Virtual Reality (AR and VR):** While both are still emerging, according to Deloitte's GMCS, approximately 10 percent of consumers own a VR headset, representing a relatively quick adaption curve for such a new product. It remains to be seen if this is just another burden on mobile network spectrum and capacity, or a significant revenue growth opportunity for carriers.

Source: Deloitte Resources, 2018 Technology, Media and Telecommunication Predictions (2018); Deloitte Resources, 2018 Telecommunications Industry Outlook (2018); Deloitte Analysis

SWOT analysis for the Telecommunication Industry

Arab youth should leverage the strengths and address the weaknesses to cope with opportunities and threats in the telecommunication industry.

Strengths

- Fast MENA adoption of growing technological trends in telecommunication industry creates a boost in the economy.
- Investments realized in emerging MENA markets (in 2015 alone, telecoms operator invested $3.2 billion in tech companies in emerging markets)

Weaknesses

- Weak infrastructure in the region greatly impacts the business activity and investment in telecommunication industry.
- Relatively low number of Arab youth majoring in science, technology, engineering and mathematics (STEM). There is a need for more STEM and ICT skills in the region.

Opportunities

- MENA market openness in telecommunications services drives growth opportunities in telecommunication industry by injecting greater competition in telecommunication services.
- Among the highest smartphone penetration in the world.
- Consumer demand in the region for telecommunication services is rapidly growing in alignment with the MENA population increase.
- Rise in start-ups investment to accelerate innovation.

Threats

- Austerity and regional instability are causing cost containment measures within the telecommunication sector.
- Local governmental policy restrictions that are not aligned with the digital ecosystem and creating restrictions for local operators to become more competitive.

Source: Deloitte Resources, 2018 Technology, Media and Telecommunication Predictions (2018); UN, UN Population Division (2005); GSMA, The Mobile of Economy MENA (2017); Deloitte Analysis

Overview of the Pharmaceutical Industry

Pharmaceutical

- The pharmaceutical industry is mainly discovering, developing, producing and marketing pharmaceutical drugs for use as medications.
- Pharmaceutical companies sell generic or brand medications, vaccines and medical devices but are subject to different laws and regulations.

- Key pharmaceutical organizations in the Arab world include **Norvatis, Pfizer, Roche, Sanofi, Merck & co, Johnson & Johnson**, etc.

2018 Pharmaceutical Outlook

On the heels of a slow recovery from previous years, global prescription drug sales are forecasted to grow at an impressive annual compound rate of 6.5 percent in the next five years. Worldwide sales are expected to be US$1.6 trillion in 2022. Health care companies should embrace all changes and evolvement taking place on various levels:

- **Fourth Industrial Revolution:** Emerging technologies are creating a transformative opportunity for life sciences. Artificial intelligence is being used by global pharma companies to streamline the drug discovery process. Accelerating technologies are also bringing dramatic transformation to the pharma supply chain. Pharma companies are also beginning to explore blockchain technology.
- **Health care disruptors:** Demographic and economic changes, increased patient expectations, and the growth of personalized medicine are disrupting health care worldwide.
- **New geopolitical climate:** Tax reforms worldwide will create incentives and disincentives for the life science sector and impact future investments.
- **Laws and regulations:** The established laws and regulations are influencing pricing of drugs and medicine forming a key market access barrier for pharmaceutical companies.

Source: Deloitte Resources, 2018 Global Life Sciences Outlook (2018)

SWOT analysis for the Pharmaceutical Industry

Arab youth should leverage the strengths and address the weaknesses to cope with opportunities and threats in the pharmaceutical industry.

Strengths	Weaknesses
• Demographic changes in the MENA region provide a strong base for the industry growth. • Patients are already demanding better healthcare services and hence there is a need to elevate the skills required in the industry.	• Local R&D skills are relatively weak and at the same time in high demand in the region. • Low availability of skilled professionals since the majority of the Arab youth are considering majoring in business rather than majoring in Science.
Opportunities	**Threats**
• In the past couple of years, the local pharmaceutical manufacturing industry has grown, generating an increased level of employment opportunities. • The trend towards privatization is growing and hence bringing more opportunities for job growth.	• The established laws and regulations are influencing pricing of drugs and medicine forming a key market access barrier for international pharmaceutical companies. • Political instability in the region which affects the economic growth which has a direct impact on health care utilization.

Source: Al Masah Capital Limited, MENA Healthcare Sector Report (2014); UN; World Bank Data; Deloitte Analysis

Overview of the Technology Industry

Technology

- The technology industry is mainly composed of technology services companies, software and infrastructure manufacturers and resellers and IT functions within organizations.
- The technology industry is growing exponentially due to the spread of internet access and the advancements in computer processing power, data storage and chip design.

- Key technology organizations in the Arab world include **General Electric, Apple, Oracle**, etc.

2018 Technology Outlook

Deloitte global predicts that by the end of 2018, a considerable percentage of all chips will be FPGAs (field programmable gate arrays) and ASIC's (application specific integrated circuits). These new kind of chips, used to accelerate machine learning in the data center, will enable applications to consume less power, become more responsive and flexible. Hence it is important for the companies to identify rapid investment opportunities in order to maintain the technology fast-pace:

- **Data science automation:** Automation of data science tasks can help companies to make better and faster decisions as well as be more productive and double their Machine Learning activities since it will reduce the time spent on gathering, analyzing and identifying the prediction model.
- **Adoption of emerging techniques:** New techniques, such as the use of synthetic data or the transfer learning, are emerging in the market to reduce the need of training data.

Source: Deloitte Resources, 2018 Technology, Media and Telecommunication (2018)

SWOT analysis for hiring Arab youth in the Technology Industry

Arab youth should leverage the strengths and address the weaknesses to cope with opportunities and threats in the technology industry.

Strengths

- Arab youth represent more than 50% of the population in the MENA region (World Economic Forum), creating a young population that is tech-savvy.
- There is an increased interest and drive for technology entrepreneurship among Arab youth.

Weaknesses

- Relatively low number of Arab youth majoring in science, technology, engineering and mathematics (STEM).
- Growth in projects related to smart cities, start-ups, e-commerce, and cloud computing has led to skills shortages (see opportunities).
- High demand and a lack of supply of qualified Arab youth to fill middle to senior IT roles in niche and high-tech sectors.
- Arab youth lack hands-on technology experience.

Opportunities

- Several business incubators in the MENA region are providing funding and support for start-ups in the technology sector.
- Growth in the use of e-commerce and cloud has increased demand for Security Professionals, Network Architects and Software Engineers.
- Growth in tech businesses and start-ups has increased demand for Software Engineers, Hardware Engineers and Security Professionals.
- Organizations are replacing non-skilled workers with technology literate candidates.

Threats

- Arab youth face strong competition for technical IT positions from Indian, US and UK nationals.
- High salaries are required to attract quality candidates.
- Perception among Arab youth that technology jobs are more suitable for men.
- Technology education should be hands-on. Currently, most universities in the MENA region do not provide suitable experiential learning opportunities to their students.
- There is a mismatch between the skills required by the industry and the education provided by universities.

Source: Deloitte Resources, 2018 Technology, Media and Telecommunication Predictions (2018); Deloitte Analysis

Assessment of youth perception on employment and on internships

Arab youth perception on top industries

Arab youth have varying perceptions regarding choosing a career in the top industries.

Banking Industry

- Perceived as an attractive industry for fresh graduates.
- Attracting the highest proportion of local talents.
- Seems to be one of the most attractive industries for women.
- Potentially helping to maintain a work-life balance.
- Perception that the industry would provide high future earnings for the youth.
- Perception of being one of the most stressful industries.

Hospitality Industry

- Not seen as prestigious as other industries.
- Low payment for non-senior positions.
- Perception that no vocational education or special skills are required.
- Potentially difficult work-life balance, particularly during overnight shifts.
- Seems to be more suitable for women.
- Nationals typically do not consider working in this industry, particularly in the GCC.

Media Industry

- Declining interest in traditional media.
- Increases awareness and interest in social media and internet content creation/publishing.
- Restrictions on what can be published.
- Requires late night shifts since the news is ongoing 24/7.

Source: Bayt.com and YouGov, The Bayt.com Top Industries Survey in the MENA (April 2017)

Arab youth perception on top industries

Arab youth have varying perceptions regarding choosing a career in the top industries.

Telecommunication Industry

- Attracting the highest proportion of fresh graduates.
- Seems to be one of the industries with the strongest growth.
- Fast-paced.
- Requires constant learning and training to adapt to new technologies.

Pharmaceutical Industry

- Perception that vocational education or special skills are required.
- Perceived as a stable industry.
- Seems to be one of the most attractive industries for women.
- Contributes to the wellbeing and health of societies.

Technology Industry

- Provides entrepreneurship and innovation opportunities.
- Fierce competition from highly-technical expatriates.
- Very technical.
- Requires constant learning and training to adapt to new technologies.
- Fast-paced.
- Seems to be more suitable for men.

Source: Bayt.com and YouGov, The Bayt.com Top Industries Survey in the MENA (April 2017)

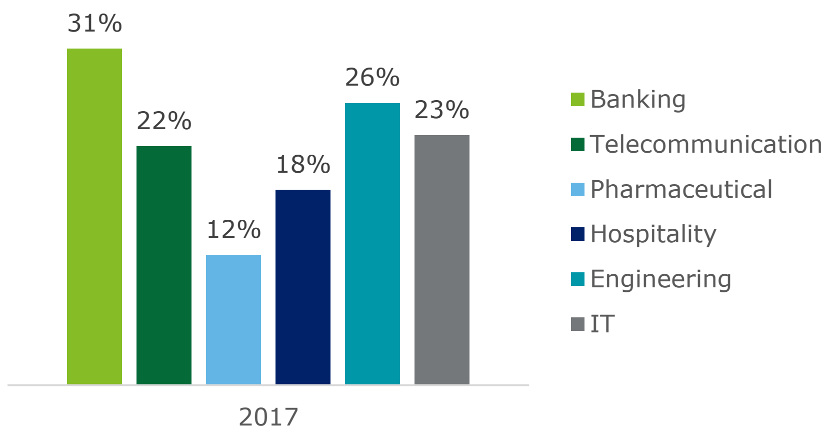
Arab youth perception on top industries

There is a gap between the industries targeted by Arab youth and those that are consistently hiring.

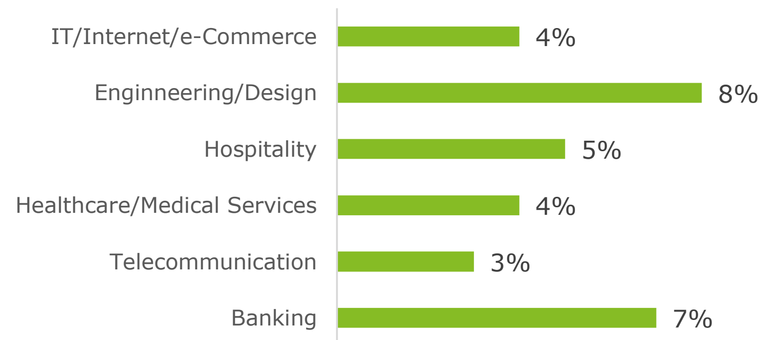
Key Findings

- According to the Bayt.com survey, and similarly to 2016 results, Baking/Finance still merges as the main industry attracting national talent, fresh graduate talent as well as female talent.
- Banking/Finance/Accounting is the most popular industry for the respondents of Bayt.com survey that are seeking employment.
- On the other hand, advertising/marketing/PR, banking/finance, consumer goods/FMCG, hospitality/recreation/entertainment, IT/internet/e-commerce and manufacturing, oil, gas & petrochemical emerge as the top industries claiming to hire most over the coming year.
- Hence there is still a gap between the industries that the youth perceive as attractive and the industries that are claiming to hire most in the coming year.

Industries attracting top talent



Industries that are attractive for job seekers

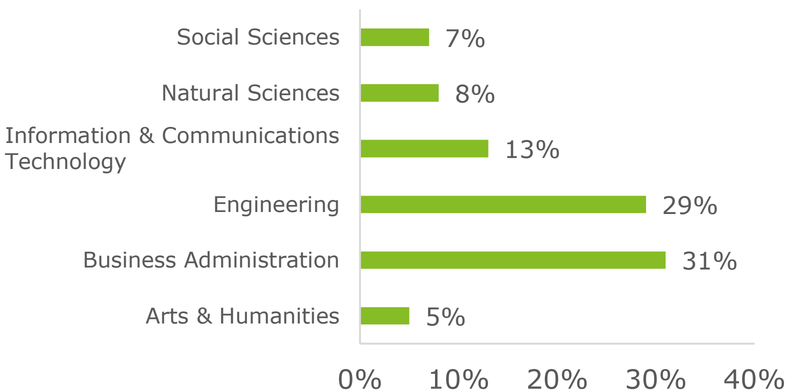


Source: Bayt.com and YouGov, The Bayt.com Top Industries Survey in the MENA (April 2017); Bayt.com and YouGov, The Bayt.com Middle East Job Index Survey (July 2017)

Educational and academic qualifications

Engineering and Business Administration are the fields that are most required in the workplace and this is aligned with the current MENA tertiary educated workforce.

Distribution of fields of study among MENA's tertiary-educated workforce| 2017
In percentages

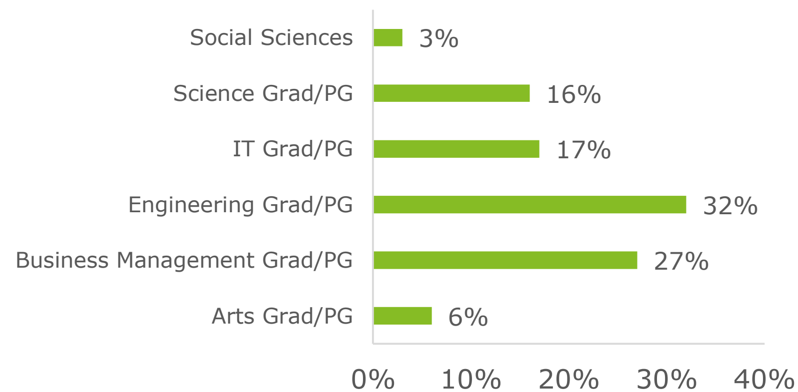


Across the region, there is a distinct tendency towards a select number of specializations, resulting in a somewhat less diversified talent pool in the region:

- 31% of LinkedIn's tertiary-educated members in the region hold a Business Administration degree.
- Approximately 50% of LinkedIn's tertiary-educated members in the region hold a degree in science, technology, engineering or mathematics. Mainly these talent are specialized in Engineering (29%).

Source: LinkedIn; World Economic Forum, The Future of Jobs and Skills in the Middle East and North Africa (May 2017)

Educational and academic qualifications sought in a candidate | 2017
In percentages



- Grad/PG degrees in Engg. (32%) and Business Management (27%) are most sought-after academic qualifications amongst employers in the MENA region.
- Top industries hiring for Engg. degrees emerge as Automotive, Real Estate/Construction and Engg. Design; while top employers for BM degree are Business Consultancy/ Management Consulting, Consumer Goods and Banking.

Source: Bayt.com and YouGov, The Bayt.com Middle East Job Index Survey (July 2017)

Youth perception on the ideal workplace in the MENA region

Training and development opportunities along with work life balance are perceived as the top factors for an ideal workplace.

Top factors that strongly drive the employees' loyalty to the company besides salary| 2017
In percentages

- Training and development opportunities (36%)
- Opportunities for long term career advancements (32%)
- Job security (27%)
- Independence and control over my work (22%)
- Fun office environment (21%)

Factors perceived as somewhat important and extremely important in the workplace| 2017
In percentages

- Work life balance (91%)
- Usage of advanced technology (83%)
- Office design and layout (71%)
- Remote work options (57%)

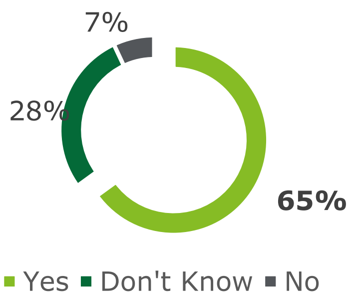
Source: Bayt.com; Ideal Workplace in the Middle East and North Africa Survey (2017)

Skills gap in the MENA region

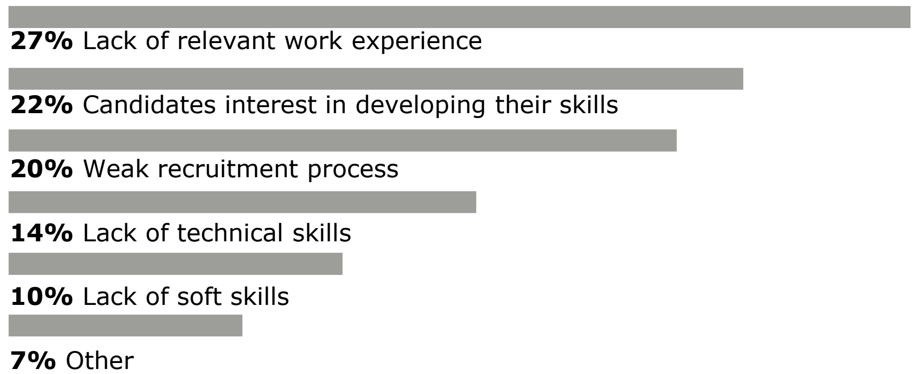
Skills gap is the difference between the skills required on the job and the actual skills that the job seeker (or employee) possesses.

Employers and job seekers are in agreement on the presence of a skills gap in the MENA region.

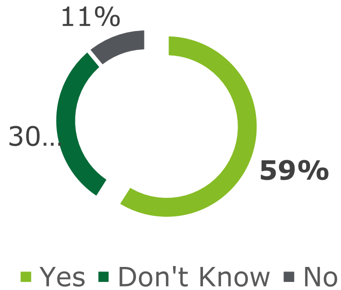
Do employers believe there is a skill gap in the MENA region?



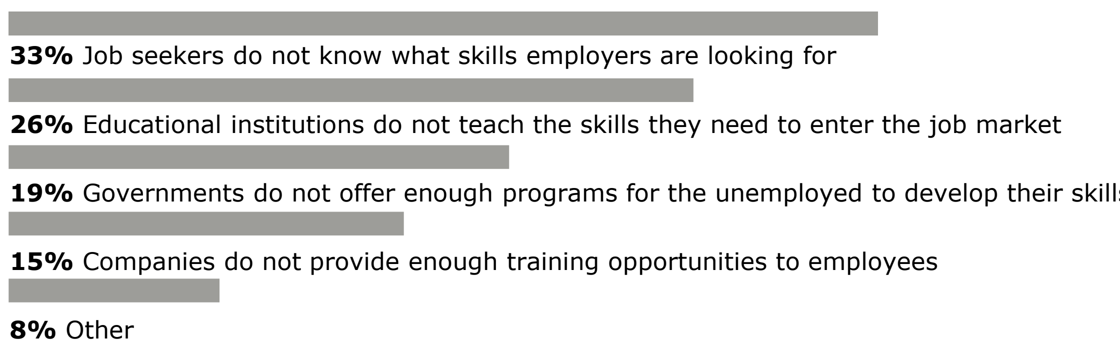
Reasons why companies do not find employees with relevant skills.



Do job seekers and employees believe there is a skill gap in the MENA region?



Reasons why job seekers do not find jobs fitting their skills.



Source: Bayt.com and YouGov, The Middle East Skills Report (2017)

Skills assessment in the MENA region I mid-Career and junior roles

Employers and job seekers are in agreement regarding the most critical skills for mid-career and junior roles.

Key Findings

- **Team Work, Time Management and Written Communication** are the three most important skills the employers look for when considering to hire a candidate for a mid-career and junior role.
- Job seekers agree that these skills are the most important skills to improve the chances to find a job.
- This is an indication that job seekers are aware of what is expected from them and this can help them focus on developing those particular skills to meet job requirements.
- However, the highest gap between employers and job seekers occurs for these most critical skills: 38% of employers find it difficult to hire candidates skilled at Team Work while 87% of job seekers consider themselves very good in this skill. Same case apply for Time Management (41%; 78%).
- Employers find it difficult to hire candidates skilled at Global Mindset (44%) and Visual Thinking (43%) and job seekers rate themselves lowest on these skills, respectively 50% and 53%. Hence job seekers are aware of their available areas of improvement when it comes to these particular skills.

83% of employers and **84%** of job seekers consider **Team Work** as a very important skill for junior roles

38% of employers find it difficult to hire junior candidates skilled at **Team Work** while **87%** of junior job seekers consider themselves very good in this skill

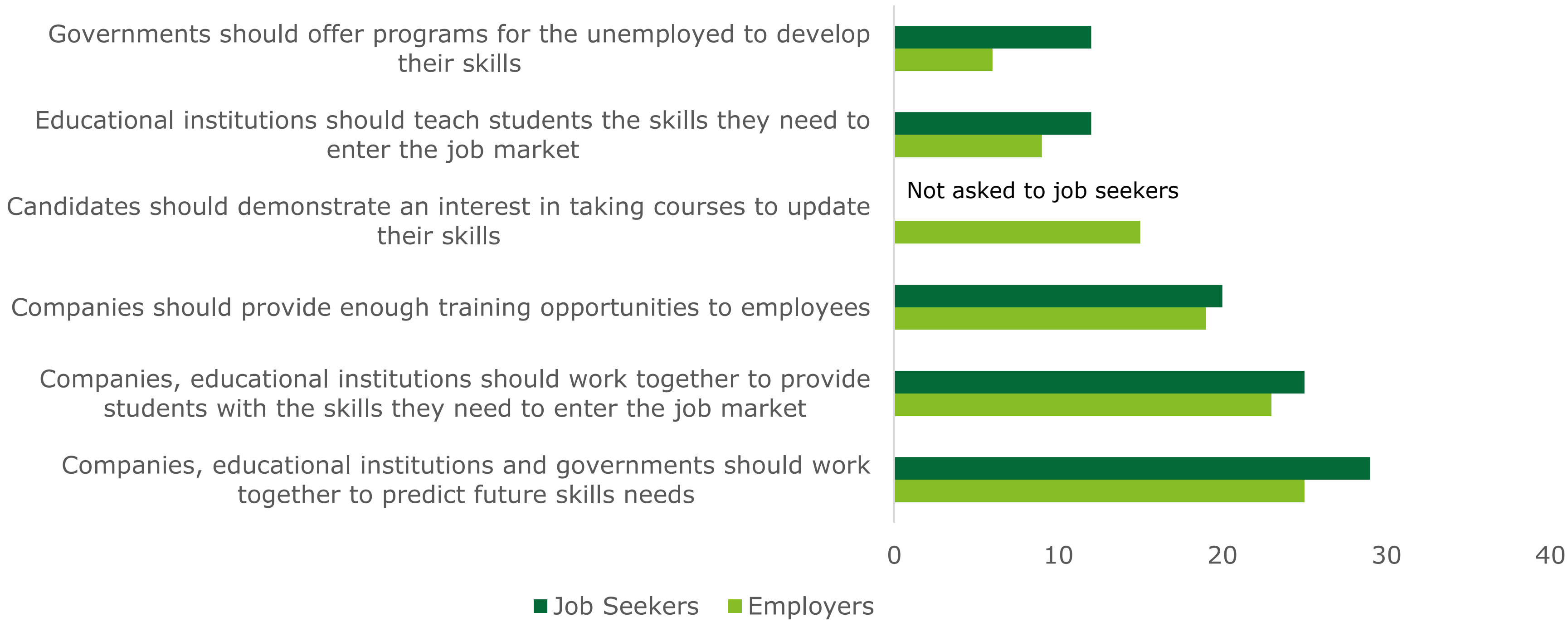
Global Mindset and **Visual Thinking** are the top difficult skills to find when hiring for junior roles

Source: Bayt.com and YouGov, The Middle East Skills Report (2017)

Bridging the skills gaps

Employers and job seekers are in agreement that the best way to bridge the gap is for companies, schools and governments to predict future skills needs together.

Methods to bridge the skills gap in the MENA region | 2017
In percentages



- In a fast-paced world, it is expected that five million jobs will be displaced in 2020. New skills will be required from job seekers in order to meet the employers' needs.
- Employers (25%) and job seekers (29%) both agree that the best way to bridge the skills gap is for companies, schools and governments to predict future skills needs together.

Source: Bayt.com and YouGov, The Middle East Skills Report (2017)

Internships and youth employment

Internships are an investment in an individual's future. Internships have many benefits and can shape the youth's career choices.

An internship is an opportunity offered by an organization to potential employees, mainly undergraduates or fresh graduates, to work for a limited period of time.

Internships prepare the youth for future employment and can shape the individual's career choices.

Real Work Experience:
Opportunity to work in a professional environment to gain actual work experience and explore different career options.

Networking:
Opportunity to establish relationships with professionals in your field and learn how to communicate in a professional environment which can be useful in the future from career advice to job recommendations.

Time Management:
Opportunity to master how to manage time efficiently in order to complete basic day-to-day activities when working in a fast paced professional environment.

Career Exploration:
Opportunity to set the foundation to your career choice by being exposed to the workplace and main activities of the job and decide whether this field is the right one for you.

Skills Development:
Opportunity to gain practical and pragmatic on the job experience (communication, teamwork, industry knowledge, sense of responsibility, etc.).

Source: careers.uiowa.edu, Definition and benefits of an internship (2018); Deloitte Middle East, Arab Career Advancement Program Consulting – Graduate (2018)

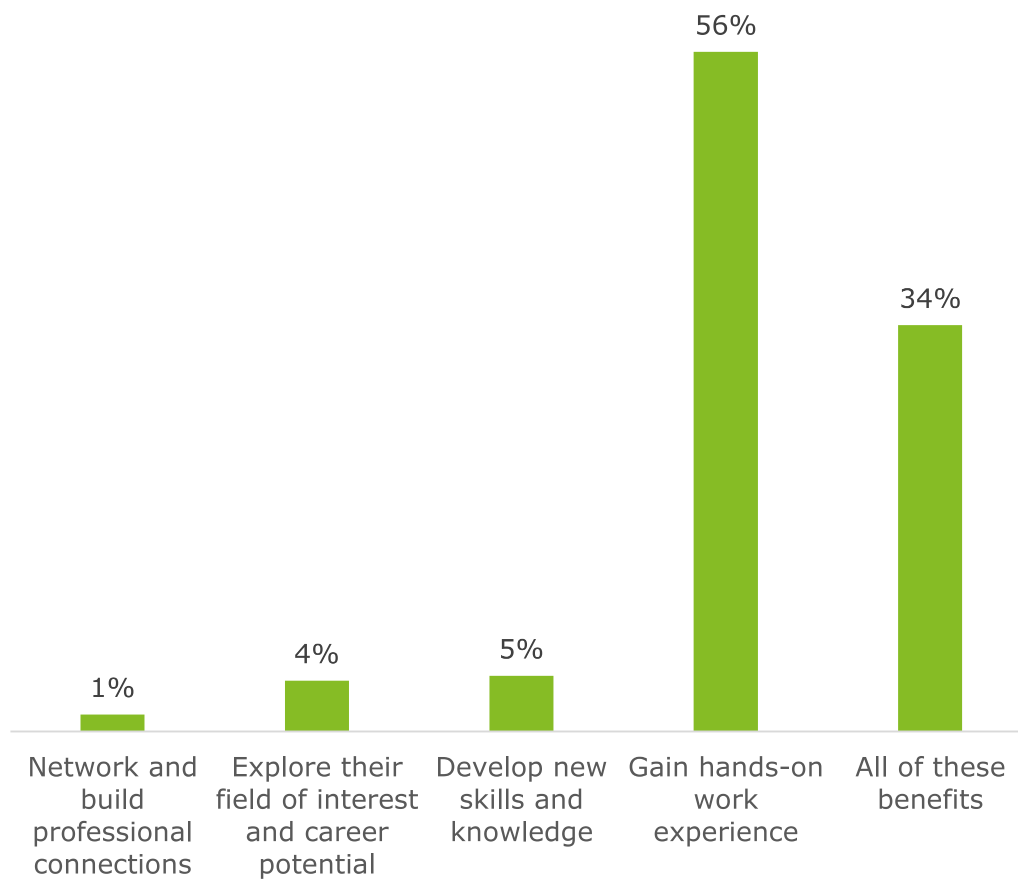
Job seekers’ views on internships

Internships are an investment in an individual’s future. Internships have many benefits and can shape the youth career choices.

Key Findings

- A Bayt.com survey concurred that job seekers gain various benefits from internships.
- 56% of Arab youth think that internships will help them “Gain hands-on work experience”.
- In addition, more than three quarters of respondents (76%) believe that internships “increase the chances of getting hired”.

Job seekers’ views on internships
In percentages

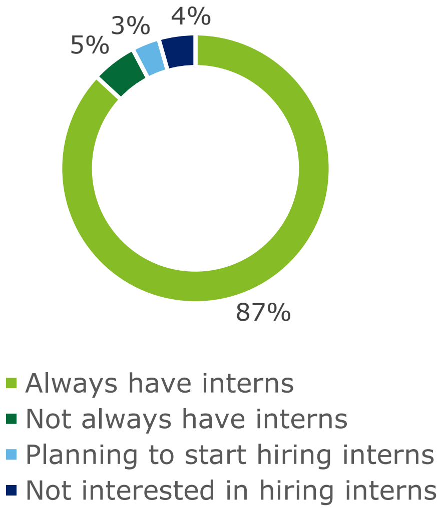


Source: Bayt.com, Internships in the MENA Region (2017)

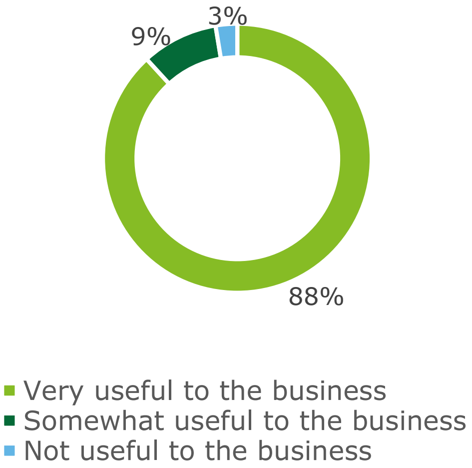
Internships and youth employment

Internships are very beneficial to the youth but also to the organizations that hire them.

Availability of internships
In percentages



Value of internships
In percentages



Key Findings

- Most organizations hire interns all through the year this is due to the value that they believe the internships bring to the business.
- The majority of the respondents (89%) believe that interns are very useful to the business by allowing them to identify talent for future positions, filling temporary and seasonal positions and providing extra help for small teams or departments.

Source: Bayt.com, Internships in the MENA Region (2017)

Internships and youth employment

The main challenge faced when looking for a job in the MENA region is the lack of previous work experience.

Lack of previous work experience is a main reason for job seekers and recent graduates to compete for a job.

Top challenges faced when looking for a job
In percentages

- Appropriate and serious internships can have the same value of a "junior position" in any entity.
- Hence, a fresh graduate, looking for a job, can be considered as someone having a "previous work experience" if he/she has done a proper internship.

Source: Bayt.com, Fresh Graduates in the MENA Survey (2017)

The future of work

Technology and the future of work

A key ingredient to success in addressing youth employment challenges in the MENA region is understanding of how technology is changing the world of work.

The fourth industrial revolution that the world is going through is characterized by automation, digitalization and connectedness. Technology is changing the way we work, we do business and the way we live. Technology can serve as a fundamental tool for improving employment and enabling wider implications in the future of work.

- Increases number and use of freelance workers. Technology facilitates for people to become entrepreneurs.
- Lowers barriers to entry in a market, making it easier for new companies to compete.
- Improves outcomes in sectors which expand and generate new demand for labor (medicine, management consulting).
- Creates jobs in new sectors (IT, software development) and knowledge-intensive sectors)
- Facilitates rising female workforce participation
- Declines relative prices, increases consumer spending power which creates new demand and new jobs
- Increases the demand for new products, which in turn creates more jobs
- Shifts spending to more discretionary goods, generating new demand for labor (ex: entertainment, gyms)

Source: Deloitte Resources, The Future of the Workforce (2016); Deloitte Resources, Technology and People: The great job creating machine (2015); Deloitte Resources, The Connected Worker (2018); Deloitte Resources, Man and Machine: Robots on the Rise? (2015)

Understanding the implications of technology on the future of work

Technology, shifting demographics and the rise of global talent are the future forces of change in the future of work.

Deloitte framework for understanding the future of work:

Forces of Change

1. **Technology: Artificial Intelligence, robotics, sensors and data**
2. Demographics: Longer lives and greater diversity of populations
3. Talent: Rise of global talent markets

Work and workforces redefined

1. Reengineering work: Technology reshapes every job
2. Transforming the workforce: The growth of alternative work arrangements

Implications for individuals

Implications for organizations

Implications for public policy

Source: Deloitte Resources, The Future of the Workforce (2016)

Implications for individuals

Arab Youth should set their sights on longer careers with multiple career steps, each involving ongoing training and reskilling.

Engage in lifelong learning. In the future, individual learning has to become lifelong—without it you are likely to find your skillset obsolete in less than five years. We no longer learn to work, but rather work to learn. As a result, in the new landscape of work, personal success will largely depend on accelerating learning throughout one's lifetime. As a lifelong learning imperative takes hold, we see individuals increasingly focusing on participation in small but diverse work groups that can amplify learning.

Acquire a technology language. All workers, regardless of occupation, should become fluent in a technology language. "Tech fluency" refers to a baseline level of technology knowledge and proficiency that workers should have to succeed in a business climate in which technology is no longer an enabler of strategy and revenue, but a foundational driver of both. The challenge is that achieving tech fluency, at whatever level, isn't a once-and-done matter of mastering a particular set of knowledge. It typically requires continuous self-directed learning and development at the individual level to ensure technology readiness in the future.

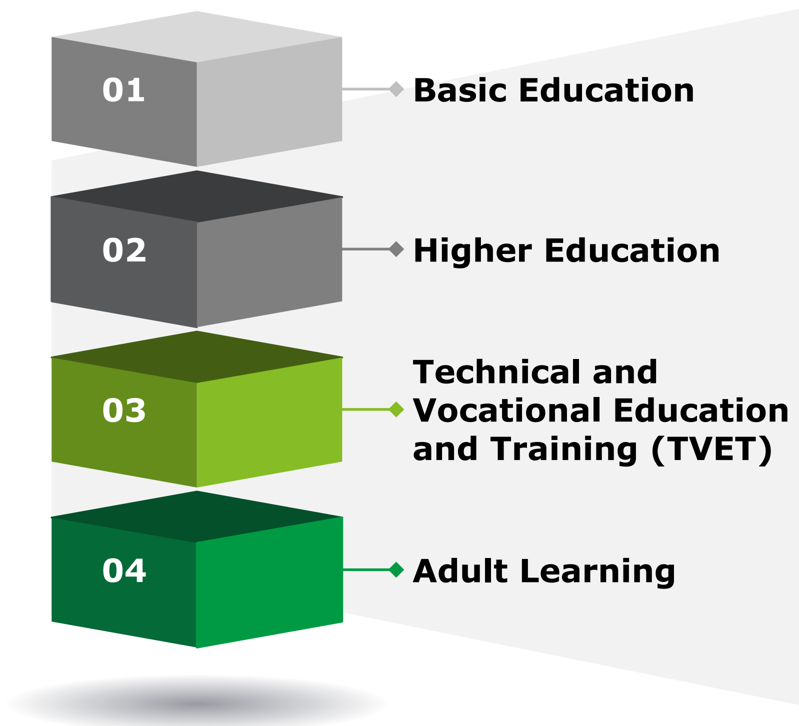
The future of work is unfolding rapidly. Individuals should now set their eyes on longer careers and engage in lifelong learning. Businesses should be prepared to redesign work and refresh their talent models. Ecosystems should look to reassess policies that make it easier for alternative workers and actively provide the infrastructure to make it easier for individuals to access learning and development throughout their careers.

Source: World Economic Forum, The Future of Jobs and Skills in the Middle East and North Africa (May 2017)

Implications for individuals

A new vision for Arab employment focusing on lifelong learning has been designed in order to prepare for the future of work.

TARGET AREAS OF THE NEW VISION FOR ARAB EMPLOYMENT



- An assessment of the quality of education and training has been done for the MENA region's countries to identify the countries that are ready for the revolution.
- An assessment of the impact of the latest technologies, local economic diversification and complexity, employee productivity and unemployment has been done to determine the countries' exposure to the revolution.
- Currently, few of the MENA region's countries are prepared for the fourth industrial revolution that is reshaping the jobs and skills required in the market.
- In order to help the region to prepare for the future of work, a new vision for Arab employment has been launched aiming to close the skills gap.

Source: World Economic Forum, The Future of Jobs and Skills in the Middle East and North Africa (May 2017)

Implications for individuals

Arab youth should build an awareness of the skillset required from them in the future in order for them to remain valuable and relevant candidates in the job market.

Skills Required for Junior Roles

Employers:

- The most critical skills today from the perspective of employers for junior roles are team work, time management and written communication. These same employers think that in 2027, the top three skills to gain in the importance rating are creative thinking (71% of employers think it will be very important), technology and computer skills (70% of employers think it will be very important) and time management (66% of employers think it will be very important).

Job seekers:

- From the junior job seekers' perspective, in ten years, the skill to become or stay most important will be technology and computer skills (80% of junior job seekers think it will be very important), followed by creative thinking (77% of junior job seekers think it will be very important) and time management (76% of junior job seekers think it will be very important).
- This is very much in line with the employers' expectations, the only difference is that employers are rating creative thinking first, followed by computer skills.

Skills Required for Senior Roles

Employers:

- If today, the most important skills for employers of senior personnel are time management, team work and people management, two of them are likely to change to creative thinking (73% of employers said it will become much more important) and computer skills (72% of employers said it will become much more important). Time management remains in top three most critical skills for the future as well (73% of employers said it will become much more important).

Job seekers:

- Last but not least, senior job seekers are in agreement that the skills to gain or stay important in ten-year time will be computer skills (85% of them said it will become much more important), time management (84% of them said it will become much more important) and creative thinking (83% of them said it will become much more important).

Source: Bayt.com and YouGov, The Middle East Skills Report (2017)

Implications for organizations

Organizations should redesign work and jobs to take advantage of the growing capabilities of machines and the need to retrain and redeploy people to higher-value and more productive and engaging jobs, working alongside smart machines

Redesign work for technology and learning. To take effective advantage of technology, organizations will likely need to redesign work itself, moving beyond process optimization to find ways to enhance machine-human collaboration, drawing out the best of both and expanding across alternative workforces. Organizational leaders should ensure that technology possibilities are connected to both customer and employee needs during work redesign. In addition, organizational leaders would have to find ways to balance what is new (and the new potential of it) with the strength of what a company still has, such as their brand and values.

Rethink through your workforce strategy. It will likely be important for organizational leaders to use data for strategic workforce planning by identifying shifting demographics and the ways in which technology is upending work. Leaders can proactively prepare talent strategies by utilizing talent and workforce planning tools to provide a clearer line of sight into their changing workforce composition. It may be imperative to then utilize these data insights to develop strategies for workforce segments across a broad range of ages and stages in their career.

Source: Technology and People: The great job creating machine (2015); Deloitte Resources, Man and Machine: Robots on the Rise? (2015)

Implications for organizations

Organizations should redesign work and jobs to take advantage of the growing capabilities of machines and the need to retrain and redeploy people to higher-value and more productive and engaging jobs, working alongside smart machines.

Technology is transforming the workplace. The new world is augmented and rules have changes. The future of work will be more networked, devolved, mobile, collaborative, team-based, project-based and fluid.

Old Rules

1. Machines and artificial intelligence are taking over jobs (replacement)
2. Full-time employees are the main source of talent
3. Workforce planning focuses on full-time workforce and skill requirements
4. Jobs are relatively static with fixed skill requirements
5. Jobs and career ladders are the foundation of work and the workforce
6. Robotics and cognitive technologies are IT projects
7. HR’s job in automation is to focus on change management and workforce transition
8. The fundamental elements of work are ”jobs”, with formally developed “job descriptions”

New Rules

1. Jobs and tasks are being redesigned to use more essential human skills, and are augmented by technology (augmentation)
2. A continuum of talent is available, including contractors, gig employees, crowds, and competitions
3. The focus in workforce planning shifts to start with work and analyzing options across multiple workforces and technologies
4. The half-life of skills continues to decrease rapidly, and work is being constantly reinvented
5. Projects, assignments, and tours of duty are building blocks for work; career are portfolios of projects and experiences
6. Integrating people and technology is a multidisciplinary task
7. The fundamental elements of work are “tasks”, which are aggregated into jobs and roles

Source: Technology and People: The great job creating machine (2015); Deloitte Resources, Man and Machine: Robots on the Rise? (2015)

Implications for public policy

Public Institutions should proactively prepare for educational challenges, including funding for ongoing education, programs to mitigate the transition costs, and updating regulatory frameworks to support new types of work and workers and a more entrepreneurial economy.

Reassess policies. In order for individuals and organizations to keep pace with the changes in the future of work, it is necessary for governments to reassess legal and regulatory policies. Governments should consider updating the definitions of employment to account for freelance and gig economy work and the provision of and access to government health, pension, and other social benefits through micropayment programs. In addition, business formation and bankruptcy rules could be updated to make it easier to launch—and exit—a business as an entrepreneur. Policy makers seem to have an interest in both hastening the emergence of new forms of work—the better to raise citizens' overall standard of living—and preparing for the stresses of the transition.

Reimagine lifelong education. It is anticipated that the half-life of skill sets will decrease to five years in the future of work. Individuals embarking upon a 30-year career would have to update and refresh their skills six times throughout their careers. Ecosystems should be ready to rethink through education and establish a framework to help everyone develop their talent more rapidly. This focus on education should extend to marginalized populations and older generations who do not want to or cannot transition out of the workforce. In addition, payment structures and incentives could be designed to support this approach to lifelong education: facilitating access to ongoing education and training throughout a working career that might span 50 years and many different types of work.

Source: INSEAD, MENA Talent Competitiveness Index (2017)

Technology and the MENA region

Despite the various challenges that the MENA region is facing, technology presents a great opportunity for the different countries in the region.

There is a risk that technology can create additional challenges to the MENA region due to the existing challenges and the fact that some of the MENA countries are still lagging behind. However, technology can be understood and leveraged to drive great opportunities in the region.

Rich Gulf Countries

Support to further diversify their economic activities and reduce dependence on oil and gas exports and avoid risk of vulnerability to price fluctuations.

Middle Income Countries

Help in broadening their manufacturing base by expanding their pool of advanced manufacturing talent.

Low Income Countries

Enable the reduction of fragility and the increase of stability through deeper integration of their local labor markets into regional supply chains and industry ecosystems.

Source: Deloitte Resources, The Future of the Workforce (2016); Deloitte Resources, Technology and People: The great job creating machine (2015)

MENA region talent readiness

According to data collected by GTCI (Global Talent Competitiveness Index) model, we explore below the dimensions related to the MENA region's preparedness to benefit from technological change.

The heat map measures four main attributes at the country level; these include: readiness of the educational system, readiness of employment system, the connectedness of stakeholders and level of technological competences.

Talent readiness heat map| 2017

Country	GTCI Rank 2017	Educational System	Employment & Protection Policies	Stakeholder Connectedness	Technology Competencies
United Arab Emirates	19	Well positioned	Well positioned	Well positioned	Well positioned
Qatar	21	Mixed readiness	Well positioned	Well positioned	Well positioned
Saudi Arabia	42	Mixed readiness	Well positioned	Well positioned	Mixed readiness
Bahrain	47	Well positioned	Well positioned	Well positioned	Well positioned
Kuwait	57	Less well positioned	Well positioned	Low readiness	Less well positioned
Jordan	58	Less well positioned	Mixed readiness	Mixed readiness	Mixed readiness
Oman	59	Less well positioned	Mixed readiness	Well positioned	Less well positioned
Lebanon	62	Mixed readiness	Less well positioned	Low readiness	Less well positioned
Tunisia	77	Low readiness	Low readiness	Less well positioned	Low readiness
Egypt	88	Low readiness	Mixed readiness	Low readiness	Less well positioned
Morocco	96	Low readiness	Low readiness	Mixed readiness	Low readiness
Algeria	107	Low readiness	Low readiness	Low readiness	Low readiness

- According to the heat map, UAE and Qatar are well positioned to face the future of work.
- On the other hand, countries like Algeria, Morocco or Tunisia lack the technology competences and the right educational and employment policies.
- Saudi Arabia shows mixed readiness in terms of educational sector.

Well positioned
Mixed readiness
Less well positioned
Low readiness

Source: INSEAD, MENA Talent Competitiveness Index (2017)

Addressing youth employment challenges in the MENA region

Addressing Arab youth employment challenges and opportunities require a joint effort across key stakeholders.

3 Civil Society and Media

- Encourage and emphasize the role of entrepreneurship to create employment opportunities.
- Spread awareness about the high unemployment rates in MENA region and their severity on the economy.
- Host joined initiatives between different stakeholders.

4 Industry Organizations

- Partner with education providers to align curricula to industry requirements.
- Promote non-traditional job opportunities and required skills clearly.
- Tackle youth misperceptions regarding working in non-traditional industries.

2 Governments

- Lead the development and oversee the implementation of a national skills/education strategy.
- Enhance accreditation requirements and education quality standards.
- Where possible, provide incentives to redirect youth to high-growth and non-traditional industries.

5 Arab Youth

- Develop and implement a plan to work in a desired industry.
- Be flexible to trying new things, particularly in high-growth and non-traditional industries.
- Pursue internships to apply concepts taught in class to real-world situations.

1 Education Institutions

- Revise program curricula and teaching methods in line with industry skill requirements.
- Incorporate international business practices and ensure international exposure opportunities.
- Promote vocational training, technical training and experiential learning opportunities as a means to gain practical and industry-specific trainings.
- Support students during the job search process, including career coaching and job fairs.

Source: Deloitte Resources and Injaz; Opportunities for Arab youth employment in the hospitality, technology and media industries in the MENA region (2016)

Appendix A: Glossary of key terms

Appendix A: Glossary of key terms

Glossary of key terms and abbreviations used in this report.

Arab	EYH defines Arabs as individuals of any nationality who currently reside in an Arab country
Youth	Individual aged between 16 and 25
Millennials	Individuals born between 1980 and 2000
Skills	Ability to perform a job or activity well
Talent	Natural aptitude that an individual has to perform something relatively well compared to his/her peers
Employed individual	Individual who is above a specific age and works for pay
Unemployment individual	Individual who is above a certain age and actively looking for a job, but cannot find one
Unemployment rate	Percentage of unemployment individuals out of the labor force of a country
Industry	Aggregate of technically-aligned activities/organizations who produce similar goods and services
Digital technology	New technology using new algorithms or applications to solve a problem
Fourth industrial revolution	Fourth major industrial period since the initial industrial revolution of the 18th century; where a range of new technologies including physical, digital and biological worlds and impacting all disciplines, economies and industries

Appendix B: References

Appendix B: References

The below consists of key references used across this report.

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