

# Research Study

Regional Center for Educational Planning

2024

## Employer Perspectives on the Skill Gaps Amongst GCC Graduates





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## **Disclaimer**

This research study was commissioned by the UNESCO Regional Center for Educational Planning (RCEP) in Sharjah, United Arab Emirates. The research study falls under RCEP's second strategic objective, which is to produce and disseminate knowledge in support of education policies to enable planning of educational systems. The views and opinions expressed in this paper are those of the authors and should not be attributed to RCEP.

This research study was conducted in collaboration with Etio, Tribal Education Ltd.

## **Regional Center for Educational Planning**

The Regional Center for Educational Planning (RCEP) is a regional educational organization with an international vision established through an agreement signed in 2003 between the government of the United Arab Emirates and the United Nations Educational, Scientific and Cultural Organization (UNESCO). Under this agreement, the Center is tasked with developing national and regional capacities in the areas of education planning and policies, educational leadership and management, and the production and dissemination of educational knowledge at the regional level. It places special emphasis on the Gulf Cooperation Council countries and Yemen, as well as consultations and technical support to enhance the efficiency, effectiveness, and quality of education systems in the Gulf Cooperation Council and Arab countries. These improvements aim to ensure that education is closely aligned with the demands of real-life situations and the workforce. RCEP collaborates with UNESCO and receives technical support through partnerships in numerous programs, projects, and initiatives related to education.

## **Executive Summary**

### **Introduction**

The countries of the GCC (United Arab Emirates, Saudi Arabia, Bahrain, Kuwait, Oman and Qatar) have seen significant growth in their education systems over the past 20 years or so. Motivated by national aspirations of diversity away from a reliance on the oil and gas sectors, each GCC country has forged its own pathway to economic development, as outlined in national documentation. With investments moving towards boosting technology, science and innovation, the importance of developing capable citizens and residents is critical to ensure these aspirations are realised. At the heart of this is ensuring education systems are well aligned with employer needs to serve these national aspirations.

Designing effective education systems requires well informed policymaking using a solid evidence base of what works and what doesn't work to achieve the desired national outcomes for learners. To support better skills supply and use in a GCC context, the Regional Centre for Educational Planning (RCEP) commissioned this important study to explore private sector employer perceptions of their graduate skills needs, and whether and how these are being met by higher education. This study and its findings and recommendations will offer insight and direction for how GCC higher education institutions and GCC private sector employers can work closer together to better support graduate skills development.

### **Research Methodology**

This study explores the skills gap between graduates and the needs of employers in the GCC countries, using a theoretical framework based on the Skills Formation Theory, Work-Based Learning Theory, and Self-Determination Theory of Motivation. The study emphasizes the importance of aligning education and training programs with market needs, promoting hands-on experiences, and understanding learner motivation to address skill mismatches and gaps and support economic diversification in the region.

Using a mixed methods research design, the study aims to provide practical recommendations for higher education and training providers. Key research questions include identifying current and future skills needs, the role of higher education in reducing skills gaps, and the impact of these gaps on employers' recruitment processes and organizational productivity.

The study collected data using a literature review, quantitative survey and qualitative focus group discussions. The online survey targeted private sector employers across six GCC countries, capturing employers' views on graduates' skills and alignment with job market needs. Six focus groups were conducted online between December 2024 and January 2025 to gather in-depth insights from private sector employers on workforce skills, higher education's role, and recruitment challenges.

Quantitative and qualitative data analysis methods were used to analyse survey and focus group data. As the data from the survey was derived from both closed and open-ended items, both methods were used, whereas only qualitative analysis was implemented in the case of the focus group data, which was analyzed thematically to complement the survey results.

## **Literature Review**

The literature review summarised findings in relation to the skills needed by employers in GCC countries: Bahrain, Oman, Qatar, Saudi Arabia, State of Kuwait, and United Arab Emirates. It explored the skills held by, and lacking among, current graduates from universities, and the role of higher education in developing these now, and in the future. It also explored how the latter affects recruitment practices among employers. Whilst it contained some insights into the issues and visions of each country, many findings relate to the GCC overall. These findings were summarised in three main sections: Current and Future Skills Needs, Education and Training Provision and Recruitment Practices and Challenges.

The review identified skills in three major categories: technical, transferable and employability skills. Drawing on the strategic visions of the six individual countries, and wider economic reports, it focused on key sectors essential to economic growth, such as Energy and Power, Manufacturing, Transport and Logistics, and Tourism. It also investigated emerging sectors and changing job supply in relation to developments such as artificial intelligence (AI). The review also drew on wider international trends to inform future thinking and was used to shape the research plan for further phases of this research project.

## **Findings**

### **Current skills needs**

The literature review identified employability and transferable skills as essential for all workplaces, and the importance of these skills was confirmed by survey responses and focus groups.

- Focus groups emphasized the importance of work ethic and time management and noted a lack of motivation and drive in graduates, describing them as lacking passion and a sense of purpose.
- Survey respondents identified dependability, time management, and attention to detail as essential skills, but less than half felt graduates had these skills.
- Understanding other cultures was highlighted as a necessary employability skill, particularly in the Middle East, with graduates' lack of understanding of other cultures as affecting their communication in multicultural workplaces.
- Communication skills, both oral and written, were noted as lacking in graduates by both survey respondents and focus group participants.
- Personal, learning, and thinking skills, such as critical thinking, problem-solving, and creativity, were identified as essential but often missing in graduates.
- Digital literacy and adaptability were also seen as essential, with significant gaps in skills like data analysis highlighted.

### **Future skills needs**

- The literature review noted international media speculation about AI and GenAI improving productivity, efficiency, and quality. While computers may replace people in repetitive tasks, people will complement computers in creative, problem-solving, and leadership areas, which are skills employers find lacking in graduates.
- The primary research aimed to understand local and sectoral concerns and impacts of AI in GCC countries.
- 78% of survey respondents believed that new technologies, including AI, will change the nature of skills needed in the workplace, with digital literacy and adaptability with digital tools and software identified as the skill that would become most important. Respondents also mentioned critical thinking, problem-solving, and creativity, as well as teamwork, as becoming more important.
- The skills that respondents felt would become less important were basic and applied numeracy and the ability to communicate in writing.

### **Education and training provision**

The literature review and primary research have highlighted the evolving education and training landscape in GCC countries, driven by economic visions and technological advancements. Employers in the region emphasize the need for higher education institutions to align curricula with market demands and integrate practical, hands-on training to bridge the gap between theoretical

knowledge and practical application. Regular feedback from employers and collaboration in designing curricula are crucial for ensuring graduates are well-prepared for the job market.

Survey respondent and focus group participant suggestions for actions to address these issues included:

- Formal and regular communication between higher education and employers.
- An increased use of internships and on-the-job training to bridge the education-employment gap.
- Combining professional certificates with degrees.
- Increased availability of on-the-job training provided both internally and externally and targeted to local skills needs.

### **Recruitment practices and challenges**

Employers in the GCC face significant challenges in recruiting qualified graduates due to a skills mismatch and high expectations from graduates, who nevertheless lack practical experience. This mismatch leads employers to invest time and resources in training, which affects productivity and incurs costs.

While training accessibility has improved, it often does not meet local industry needs, and geographical barriers still exist in some of the GCC countries.

### **Recommendations**

This study has identified current and future skills gaps. Employability and transferable skills are felt to be vital both now and, in the future, as are digital skills. Recommendations to address these skills gaps take account of the literature review, online survey and focus group. A key overarching recommendation is that there should be extended and enhanced communication and collaboration between higher education and employers, supported by policymakers and recognised as a priority in policy statements and policy documents.

Recommendations are provided on mechanisms to address each of the major skills gap that has been defined by the study. Broader recommendations for each of higher education, employers and policymakers are also provided.

### **Recommended actions for addressing identified skills gaps**

In order to ensure that the current and future skills needs of private sector employers in GCC countries are met, it is recommended that the education and training sector and employers collaborate to ensure that the following developments are put in place.

- Educational institutions should incorporate employability skills such as dependability, attention to detail, and flexibility into their curriculum. This can be achieved through collaboration with industry. Employers should ensure that employability skills such as time management and a strong work ethic continue to be nurtured in the workplace.
- Higher education should implement undergraduate projects and tasks that encourage the development of critical thinking and problem-solving skills and stimulate analytical and innovative thinking. Educational institutions and employers should collaborate to integrate these critical thinking and problem-solving components/elements into curricula and training programs.
- Higher education needs to ensure that its courses prepare students for workplaces that require teamwork and collaboration to solve difficult problems. This will require programmes that help students develop understanding of the multi-cultural environments that they are likely to experience in industries in GCC countries. It will also require students to develop their communication skills. Both higher education and employers should use team-building activities to enhance interpersonal skills and ensure effective teamwork.
- Developing digital literacy skills has been identified as a key requirement both to address current skills gaps and is noted as a growing requirement as the impact of new technologies on the workplace increases. The education sector, including higher education, should develop training programs targeting technology skills and ensure they are adaptable to evolving market needs, enhancing digital literacy and adaptability. Employers should invest in comprehensive digital literacy training programs for their employees to address gaps in digital skills, such as data analysis.

### **Recommendations for Higher Education**

This research has focused on the role of higher education and what it might do differently to decrease skills gaps that employers in GCC countries currently find in graduates. To address the skills gaps identified in this study, higher education institutions should take the following actions:

Higher education should improve curricula, pedagogy and programme design and:

- Ensure that curricula are aligned with employer needs, regularly updating curricula to match the evolving requirements of local industries.

- Combine practical and theoretical training, integrating practical, hands-on training with theoretical knowledge to better prepare students for the job market.
- Offer flexible learning pathways and combine professional certificates from relevant bodies with degree programs to help students bridge the gap between theoretical knowledge and practical application.
- Establish feedback mechanisms with employers and develop partnerships for internships and apprenticeships.

Higher education should improve partnership working, consultation and communication and:

- Establish mechanisms for continuous feedback from employers to ensure that degree and training programs remain relevant and effective.
- Develop partnerships with local businesses to offer internships.
- Consider partnering with relevant established and respected professional bodies.

### **Recommendations for Employers**

Whilst this study focused on identifying employer skills needs, employer views on their own role were gathered and it is recommended that employers acknowledge their responsibilities in training by implementing and building on the positive practices identified in this research study.

Employers should:

- Actively collaborate with educational institutions to participate in curriculum development and communicate the skills required for future job roles.
- Support or establish formal and regular communication channels between employers and higher education institutions to ensure curricula are aligned with market demands.
- Increase the use of internships and on-the-job training programs to provide graduates with induction into the industry and workplace and bridge the gap between theoretical knowledge and practical application.
- Implement mentorship programs and develop robust and structured in-house training programs to upskill employees.
- Utilize online learning platforms to provide accessible and flexible learning options for employees to acquire new skills at their own pace.
- Create a culture of continuous learning.

## Recommendations for Policymakers

In order to ensure that the skills gap being faced by employers in GCC countries can be mitigated, policymakers across GCC countries must recognize that the skills mismatch between graduates and employers' needs is a critical issue that demands immediate attention and support the positive actions of higher education and private sector employers. Policymakers across GCC countries should:

- Encourage and/or mandate stronger collaboration between educational institutions and industry to ensure that curriculum and training programs align with the current and future needs of the job market.
- Develop research mechanisms to establish skills gaps and regularly publish reports and forecasts that monitor and anticipate employer skills needs.
- Ensure that higher education policy is informed by the current issues faced by existing graduates.
- Implement initiatives to make training more accessible in smaller cities and town, and more rural and remote areas.
- Encourage in-house and vocational training programs within organizations to bridge the immediate skills gap.
- Invest in high-quality online training programs that are tailored to regional industry needs, ensuring that they reflect local sectoral practices.

## Suggested areas for further investigation: educational context/culture

This research study has investigated the views of private sector employers about higher education and how well it prepares its graduates to enter the workforce. As such, it has not considered wider contextual issues that may be at the root of some of the problems identified. There are several such wider contextual issues that could impact on the success (or otherwise) of any implementation of the recommendations above. Longer-term, successful implementation of the recommendations above may require investigations, research and debates on some of the following contextual or cultural issues:

- **Contextual issue 1** – The need for structural change, to how learning programs are organized, who teaches them, and what learning experiences are made available to students, may also be necessary. This may be affected through the suggested increase in use of internships and work placements if these are managed through active collaboration between the university and the employer with planning and feedback loops built into the

process.

- **Contextual issue 2** – Research participants noted that they felt that university education is too theoretical/knowledge-based. Whilst this can be partially addressed by review and revision of curriculum content, the question of the place of knowledge vs skills is a universal challenge in 21<sup>st</sup> century education systems and may suggest that it would be useful to initiate a dialogue about the fundamental nature of learning in higher education.
- **Contextual issue 3** - Mechanisms to review and revise curricula will take account of the needs of particular employers in geographical areas at a particular point in time, but consideration also needs to be given as to how to ensure that the needs of all employers are met, and that the curriculum is able to adapt and change at a rate that mirrors the rate of workplace change. A focus on employability and transferable skills that have been identified as important for all job roles can help to address the issue of some employers/ sectors potentially dominating consultation loops, and the necessarily slow pace at which such consultation loops often work.
- **Contextual issue 4** –Whilst this study asked employers to reflect on their own role in attracting and training graduates, this was not a main focus of the research. Issues around what young people want and expect from employment must also be addressed. This may involve educating young people about the workplace at a much younger age, but it may also require employers to consider what they can do differently to take account of the differing expectations of the generations who will be entering the workforce in the next few years.
- **Contextual issue 5** – Arguably, changes to curricula, and to teaching and learning practices, can only be truly effective when the activities that are introduced are assessed, certificated and accorded currency for progression to employment. A review of assessment and certification would help support curriculum change. This may involve partnerships or collaborations between universities and professional bodies, as suggested by some research participants.

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## Abbreviations

Acronym	Description
AI	Artificial Intelligence.
FG	Focus Group
GCC	Gulf Cooperation Council. Its member states are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.
GPTs	Generative Pre-trained Transformers. It refers to a type of artificial intelligence model designed to generate text by predicting the next word in a sequence given all the previous words within some text.
HEIs	Higher Education Institutions
ICT	Information and Communication Technology
ILO	The International Labour Organization
KSA	Kingdom of Saudi Arabia
MDs/CEOs	MDs stands for Managing Directors, and CEOs stands for Chief Executive Officers. Both terms refer to high-level executive roles within organisations.
R&D	Research and Development
STEM	Science, Technology, Engineering, and Mathematics
UAE	The United Arab Emirates
WBL	Work-Based Learning

# Introduction

## Background

This research unfolds amidst economic transformations in the GCC countries, where several factors are influencing the skills' needs of the workforce. Although traditional industries remain strong, a significant increase in population, the pandemic, technological advancements, increased tourism, and a shift towards more sustainable work practices, and a reliance on international labour at all levels of employment mean that skills gaps are hampering employers in their ambitions to take full advantage of the opportunities available.

GCC countries have experienced a decline in oil production coupled with an exponential population increase, driving a need to diversify the economy. In 2019, most of that population increase consisted of non-nationals, especially in the United Arab Emirates (UAE) and Qatar. Pay and conditions in the private sector in GCC countries are not as attractive to locals as those in the public sector. Whilst the official national language is Arabic, business in the private sector is often conducted in English, which makes jobs in this sector even less appealing and accessible to locals.

Each GCC country addresses its skill shortages under initiatives like 'Saudization,' 'Emiratization,' etc., intending to ensure that more jobs are available to nationals, however this has come with challenges. In the Kingdom of Saudi Arabia (KSA) for example, wages have been pushed up as nationals will not accept those previously paid to foreign workers.

Additional barriers to the recruitment of skilled workers include the use of educational attainment as a proxy for skill, and age as a proxy for experience.

This research report investigates these issues with the aim of providing a picture of the skills of current graduates, the skills needed by private sector employers, and the mismatch between the two. Ultimately, the intention of the research is to offer recommendations on addressing gaps, mismatches and challenges and to support policy decisions around skills supply in GCC countries.

A note on language: across the literature on skills supply, the terms 'skills gap' and 'skills mismatch' may be used interchangeably. However, when aiming to define challenges precisely, the two terms have slightly different meanings. A skills mismatch occurs when skilled workers are available, but

their skills do not match current employer needs. A region can face a skills mismatch even though it has no overall shortage of skilled labour. A skills gap is a particular type of skills mismatch in which workers with the required skills are available, but not in the numbers needed. GCC countries face both of these issues, and both of these terms are used in this report.

## Overview of the research process

This research report supports these aims by providing:

- a picture of employers' technical, transferable or employability skills' needs in GCC countries
- insights into current education and training provision, focused on higher education, including what is working and where the gaps are, and what changes may be needed to give future employees the skills and knowledge required by employers.

## Research themes and questions

The research study was organised around three broad themes, each with a number of associated research questions. These are reproduced in Box 1. Three methods of data collection (literature review, online survey and focus groups) were planned and were conducted in overlapping phases. Each phase of research was designed to explore some or all of the research questions, with the overall aim of covering all research questions across the three phases. This report includes findings of the literature review, which are summarized in Section 2 and reproduced in full in Appendix 1. This is in addition to the results obtained from the survey and focus group, which are integrated with key findings from the literature review in Sections 4, 5, and 6.

## **Box 1: Research Themes and Questions**

The research study is focused around three main themes, each of which is broken down into a set of related questions.

### **Theme 1: Current and future skills needed in the workforce**

In relation to the private sector in GCC countries:

- What technical, transferable or employability skills are currently needed by employers, and are lacking among graduates?
- What is the alignment between graduates' acquired skills and the needs of the job market?
- What is the anticipated role of AI and new technological tools in the workforce?
- What is the impact of AI and new technological tools on existing skills?

### **Theme 2: Education and Training Provision**

To the private sector in GCC countries:

- What are employers' perceptions of education quality from higher education institutions in the GCC?
- How do employers communicate with schools or higher education systems, if at all?
- What are employers' perceptions of the role of Higher Education Institutions in instilling important skills for the GCC workforce, versus their own role in training employees via training and development initiatives?
- What are employers' perceptions of how higher education can reduce the skills gap between graduates and employer needs, and ensure greater availability of in-demand skills in the workforce?

### **Theme 3: Recruitment practices and challenges**

In the private sector in GCC countries:

- What challenges do employers face in finding qualified candidates, and how do they address these challenges?
- How do skill gaps among graduates influence employers' recruitment processes in the GCC region and their decisions on office locations?

*Box 1: Research Themes and Questions*

## Literature Review: summary

This section provides a summary of the literature review: the full text of the report of this initial phase of the study can be found in Appendix 1.

The literature review that formed the first phase of this study aimed to provide as full a picture as possible of the current skills of current graduates, and the skills needed by employers – and the gap between the two; current skills provision, and the impact of these on employer recruitment practices. It also aimed to inform the questions for, and design of, the survey tools and focus groups which would form subsequent phases of the study.

With the ultimate aim of supporting policy decisions around skills supply in GCC countries, the literature review set out to provide:

- a full picture of employers' skills' needs in GCC countries
- insights into current education and training provision, included but not limited to higher education, what is working and where the gaps are, and what changes are needed to graduate programmes to give future employees the skills and knowledge required by employers
- insights into the impact of the lack of suitably skilled graduates on the ability of organisations to recruit staff
- recommendations on where to focus the survey and focus group questions.

The literature review reveals employer skill requirements, educational and training offerings, and the effects of skill shortages on recruitment, aiming to:

- Explore skills needed by employers in GCC countries
- Examine the current and future skills of graduates from universities
- Consider the impact of higher education on employer recruitment and training practices.

Focusing on skills demands in sectors crucial to economic growth, the review categorizes skills into three main types:

- Technical skills
- Transferable skills
- Employability skills

The literature review formed the first step in this study, serving to inform the subsequent research plan for the RCEP's work on employer perspectives on skills gaps among GCC graduates, and providing important data to shape survey and focus group questions. Details on how the literature review informed further phases of the research can be found in the Content Validity Table in Appendix 2.

## **Priority sectors**

GCC employers must recruit skilled workers to meet current market demands and develop a diverse workforce to aid economic transformation. Examining key trans-national reports on employment trends in GCC countries, and taking into account that GCC countries aim to transform their economies with sustainable and technology-driven practices, the literature review identified the following priorities:

- Key sectors for employment and economic growth, including renewable energy, manufacturing, tourism, transport and logistics, ICT, and financial services.
- Targeted training needed for skills in electronics, mechanical engineering, water desalination, and renewable infrastructure.

Data sources examined provided a picture of current strengths and post-pandemic resilience of GCC economies, with fossil fuels remaining the strongest economic performers.

Priority sectors for each country were identified, as evidenced in the available literature and policy documents (include national economic vision statements). These priority areas are not listed in detail in this summary but can be found in the full literature review.

Some key points identified include:

- GCC employers require a wide range of ICT and logistics skills.
- The retail industry is central to growth, needing logistics and ICT skills.
- Real estate offers opportunities in infrastructure, engineering, construction, and retail.
- The energy sector needs skills in planning, installing, maintaining, and operating new energy modes.
- The hospitality sector contributes 12% to UAE's GDP but is barely mentioned in other GCC countries.
- The surge in e-commerce due to the pandemic marks significant growth in the fintech market, but this is hindered by regulatory, investment, and language barriers, with a need for cybersecurity and data analysis skills.

## Themes

### Theme 1: Current and future skills' needs

Under this theme, the literature review focusses on identifying the problems to be addressed by exploring the critical skills gaps identified among graduates in key sectors, underscoring the urgent need for targeted educational reforms.

#### **Technical, transferable and employability skills currently needed by employers and lacking among graduates**

This theme explores the critical skills gaps identified among graduates in key sectors, underscoring the urgent need for targeted educational reforms. In discussing this research theme, the literature review clearly identified specific challenges and skill needs of employers in GCC countries regarding the skills of graduates. It highlighted the importance of practical skills, the gap between academic learning and workplace demands, and the necessity for industries to quickly adapt to changes. Key points raised included:

- Employers in GCC countries face challenges in finding qualified candidates due to skill gaps among graduates.
- Practical skills and real-world readiness are essential but often lacking in graduates.
- There is a significant need to update educational content and assessment methods to better prepare students for the workforce.
- Digital proficiency, adaptability, agility, and sustainability knowledge are crucial post-pandemic skills.
- The retail industry demands employees who can manage digital transformations and innovate to meet customer expectations.
- Sustainability skills focus on reducing reliance on fossil fuels and sourcing goods locally.
- STEM (Science, Technology, Engineering, and Mathematics) skills are crucial for innovation and success.
- Employers seek graduates with advanced technical skills, management capabilities, and innovative thinking.

The review found that technical, transferable, and employability skills vary across different economic sectors in the GCC. These are detailed in the full report and not reproduced here.

#### **Alignment between graduates' acquired skills and the needs of the job market**

Literature analysed as part of the review suggested that:

- There is a mismatch between the skills students believe they have and what employers find necessary, particularly in leadership qualities.
- The growing number of non-GCC students graduating from universities within the GCC does not necessarily address this mismatch, as international students' skills often do not align with local job market needs due to differences between education provided at international universities and practical requirements (Umar & Rahmann, 2023; Buckner, 2022).
- Despite the urgent market demand for specific skills, schools and universities are not adapting their curricula to meet these needs.

### **The impact of AI and new technological tools on existing skills**

The review found AI and new technological tools are transforming the skills needed in the workforce. The incorporation of AI and emerging technologies are crucial to meet the modern economy's demands and to prepare the workforce for future challenges:

- Technologies like GPTs are improving productivity, efficiency, and quality, but require proper skills to ensure accuracy.
- AI's impact on jobs will be profound and widespread, with a positive correlation between the use of AI tools and wage improvement.
- Continuous learning, interdisciplinary education, and collaboration are essential to harness AI's potential.

Under this theme, then, the literature review identified employers' current and future skills needs, and perceived and anticipated skills gaps, providing a clear picture of the problem to be addressed.

## **Theme 2: Education and Training Provision**

Having identified the problem to be addressed, the literature review went on to identifying evidence of how higher education and employers had responded to these problems. In response to these identified skills needs, GCC education systems are evolving, and over the past decade, the education and training landscape in the GCC countries has greatly evolved, driven by economic and social changes. Economic visions and national agendas have spurred substantial investments in education, with a focus on quality education, human capability development, and preparing citizens for future labour markets.

Technological advancements have significant implications for the education sector and employment:

- Industry 4.0 technologies impact learning opportunities and instructional procedures.
- Technologies include connectivity, data, analytics, human-machine interaction, and advanced engineering.
- Skills in social, emotional, complex cognitive, and technical areas like coding will rise by 30-50% over the next decade.
- Demand for basic literacy, numeracy, and manual skills in repetitive tasks is expected to decline by 20-30%.
- Despite advancements, local talent with expertise in these areas is scarce, leading to high reliance on expatriate workers.

Overall, the education sector across GCC countries faces challenges in aligning graduate outcomes with labour market needs, with a greater focus on humanities than on crucial technical fields, and a lack of investment in higher education and R&D, below global averages. Technical skills gaps are likely to persist without effective change. Understanding the main growth drivers and challenges is essential for the education sector to address these implications and ensure proper alignment with labour market needs.

### **Employers' Perceptions of Education Quality from Higher Education Institutions in the GCC**

Employers expect Higher Education Institutions (HEIs) to produce graduates with essential workplace skills, but have mixed opinions on how well HEIs in GCC countries do this:

- Improvements in infrastructure and educational technology have been acknowledged.
- Many employers find the curricula disconnected from industry requirements and job market demands.
- Lack of confidence in local education and training providers persists among employers.
- Key skills identified as lacking among graduates include computing, teamwork, English proficiency, communication, work attitudes, practical skills, learning management, lifelong learning, and digital literacy skills.

Compatibility between employers' and educators' expectations is critical for assessing employment outcomes.

GCC countries are enhancing communication between HEIs and industries to align academic

programs with market needs, including internships and work placements. Despite these efforts, satisfaction levels regarding HEI-employer engagement remain moderate, with calls for greater employer involvement in curriculum development and practical learning.

Employers see their own role as that of providing specialized technical training through internships and on-the-job learning.

### **Employers' Perceptions of How Higher Education Institutions Can Reduce the Skills Gap Between Graduates and Employer Needs and Ensure Greater Availability of In-Demand Skills in the Workforce**

Effective communication and collaboration between HEIs and employers are crucial to bridging the skills gap and ensuring graduates are equipped with relevant skills:

- Employers recommend continuous alignment of academic programs with labor market needs.
- Emphasis on developing soft skills such as problem-solving, teamwork, and communication.
- Greater collaboration between HEIs and industry for internships and practical learning.
- Improved career guidance services and data collection on employability outcomes.
- Introduction of micro-credentials to enhance skills-based learning.

In exploring Theme 2, then, the literature review set out a comprehensive picture of how education is or is not meeting employers skills' needs.

## **Theme 3: Recruitment practices and challenges**

Reflecting on the earlier discussions on skills and education, this theme delves into how GCC employers are navigating the recruitment challenges that emerge as a result of perceived skills gaps. Employers continue to face challenges finding graduates who have the skills that they require. Under this theme, then, the literature review first looked for evidence of the challenges that this brings for employers, and then for evidence of how employers were seeking to meet those challenges.

### **Challenges faced by employers when recruiting graduates**

Employers face challenges upskilling existing employees and prefer graduates with ready skills.

Upskilling challenges include employee resistance and upskilling costs. Small businesses in particular are impacted by lack of management and entrepreneurial skills in graduates. Employers' challenges when recruiting graduates differ with the source of those graduates:

- Graduates from public universities tend to be local students, with a preference for government jobs. Their courses have had a mainly theoretical focus.
- Graduates from private Universities: These courses have expanded to meet professional demands, but there are concerns over quality and the focus on courses likely to be popular.
- Graduates from international universities will have technical, language, and cultural skills, but restrictive visa policies reduce long-term prospects here.

To address these challenges, employers have put in place a range of recruitment strategies:

- Proactive recruitment of young people through internships and apprenticeships.
- Use of social media for both customer engagement and recruitment.
- Collaboration with educational institutions for future needs.
- Better compensation and appealing work environments.
- In-house training programs and use of recruitment agencies.

## **Interim conclusions and recommendations**

Based on the literature analysed for this review, the following conclusions can be drawn:

- Educational content and pedagogy in GCC countries are inadequate for developing the practical skills employers demand. Content and teaching need to adapt to practical skills' development.
- Although employers rely on graduates to address skills shortages, many graduates remain underprepared.
- The skills mismatch is largely attributable to swift technological changes and dynamic business environments.
- Higher education must be more closely aligned with contemporary market demands.
- Partnerships between employers and universities are essential.

Findings of the literature review suggest that the following actions should be recommended:

- Revise higher education programs to align more closely with market needs and incorporate applied learning and practical skills development.
- Foster collaboration between employers and educational institutions to ensure training programs meet current and future industry needs.

- Implement strategies to continuously update training and education programs to keep pace with technological advancements.
- Clarify the roles of educational institutions and employers in developing specific skills and ensure investments in equipment and training where necessary.

These conclusions and recommendations must be taken as interim only. They will be tested in subsequent phases of this research study, with a survey designed to gather current primary data on employer views of their skills needs, how well higher education meets those needs, and the challenges that they face because of any gaps or mismatches. Detailed and nuanced views, especially on complex issues such as skills needs, will be gathered through focus groups designed to ensure rich data from a smaller number of participants.

## Research Methodology

### Theoretical and Conceptual Framework

The research study at hand investigates the skills needs of the workforce in the GCC countries amidst economic changes, focusing on the skills gap between current graduates and the needs of private sector employers. To effectively address these questions, the study employs a mixed-methods approach grounded in several key theoretical frameworks. Established theories and evidence-based principles from scholarly literature form the theoretical and conceptual frameworks for this study. Among the key theories is the Skills Formation Theory, which encompasses the classical Human Capital Theory that highlights the value of investments in education and training for enhancing productivity of employees (Becker, 1964; Schultz, 1961); thus, underscoring the necessity of aligning educational outcomes with labor market needs for driving economic growth. According to this impactful and long-lasting theory, what humans know, can do, and are good at doing constitute inputs to economic processes, and serve as a form of capital that can be invested in and developed over time for long-term returns. We will see this theory demonstrated repeatedly in the findings of this study, with employers convinced that investment in skills is necessary to allow them to produce long-term economic growth.

Building on the context provided by Human Capital Theory, the study is also underpinned by the Work-Based Learning (WBL) Theory, which is associated with the concept of Skills Formation. The theory recognizes several WBL types (e.g., internships, apprenticeships, job shadowing, field trips, and industry visits) that share one principle as a guiding foundation. This principle posits that

combining formal education with hands-on workplace learning enhances employability skills and highlights necessary skill gaps. (Billet, 2011; Gosling 2021). WBL is rooted in experiential learning theory and, thus, stems from the idea of learning by doing, which posits that learning is most effective when it involves active participation and reflection on experiences (Kolb, 1984). Again, we will see this theory amply demonstrated in the responses of GCC employers, and it is one of the main learning points of this study that GCC employers believe that workplace learning must be part of formal education programmes.

Finally, this study is grounded in the Self-Determination Theory of Motivation that focuses on the role of intrinsic sources of motivation, such as the need for a sense of competence, belongingness/relatedness, and autonomy on skill acquisition and learning (Deci & Ryan, 1985). This theory is important as understanding motivation of learners can result in the design of more meaningful and relevant training programs and skills' development education. Across this study, this theory is evident in employer views of why and how their recruits and employees are motivated to work well and acquire skills.

Conceptually, the research follows multiple evidence-based principles identified in the literature. Among them mainly is the belief that the decline in oil production, and the need for economic diversification in GCC countries, necessitate a workforce with diverse skills (Hvidt, 2013). Yet, in some of these countries, skill mismatches and skills gaps are impeding economic diversification efforts and progress (Forstenlechner & Rutledge, 2010). Changes in the demographics and national strategies across GCC countries are also having a significant impact on the labor market dynamics and trends; as, the significant increase in population, particularly non-nationals in some countries, along with nationalization policies to boost local employment, such as Saudization and Emiratization, are creating unique challenges in the labor market (Al-Waqfi & Forstenlechner, 2010).

These principles and theories lay the groundwork for a structured approach to investigating the skills needs of the workforce in the GCC countries. By grounding the research in this way, the study aimed to offer practical recommendations to bridge the skills gap and support economic diversification efforts in the region.

The next section of this report explains how these theories have been drawn upon in the research process for this study.

## Methodology

### Introduction

This study explores private sector employers' perceptions of graduate skills needs in the GCC countries. Focusing on current and future skills requirements, this study also addresses employers' recruitment practices and challenges, aiming to offer practical recommendations for key stakeholders, primarily higher education and training providers. To accomplish this, the study employs a mixed methods research design, integrating quantitative and qualitative data collection methods, to leverage the strengths of both approaches, enhancing the depth of understanding across all research dimensions and enabling effective triangulation for more comprehensive insights (Creswell, 2014).

The main research questions of this study can be articulated as follows:

1. What are the current and future technical, transferable or employability skills needed by employers in the GCC workforce, and are lacking among graduates?
2. What is the role of Higher Education Institutions in instilling important skills for the GCC workforce and how can such institutions reduce the skills gap between graduates and employer needs?
3. How do skill gaps among graduates in the GCC impact employers' recruitment processes and the overall productivity and performance of their organizations, and how do employers address associated challenges if any?

These questions, along with the review of the scholarly literature on the main research themes (i.e., current and future skills' needs; education and training provision; and employers' recruitment practices and challenges) have helped inform the selection process and design of the research instruments utilized in this study. In particular, a mixed methods approach has been designed to allow us to combine quantitative and qualitative research methods. This approach is acknowledged as valuable, and indeed necessary, when complex research questions are being investigated. In this instance, some of our research questions need to be investigated quantitatively, for example to give us a broad overview of employer perceptions across GCC countries. Other research questions require to be investigated qualitatively, for example to provide us with in-depth insight into and explanation of employer views of how well higher education prepares graduates for employment and what could be done to address this. In designing our research study to use the strengths of mixed methods in this way, we ensure that our qualitative data provides context and explanations

for our quantitative findings and vice versa:

- Phase 1 – literature review (qualitative) – establishing broad themes to be further explored.
- Phase 2 – survey – quantitative and qualitative – providing verifiable data that gives us a systematic overview.
- Phase 3 – focus groups – exploring detail behind the quantitative data and seeking explanations for it.

The study was also designed to allow triangulation of findings, with each phase designed to provide cross-validation of the data gathered in previous phases. Overall, the mixed methods design provides a holistic and comprehensive understanding of the research problem that we are addressing.

As well as drawing on the strengths of this mixed methods design, the research instruments were informed by the principles constituting the theoretical and conceptual frameworks underpinning this study, which are based on the Skills Formation Theory, encompassing the classical Human Capital Theory; the Work-Based Learning (WBL) Theory rooted in Experiential Learning Theory; and the Self-Determination Theory of Motivation, in addition to other evidence-based principles. In more specific terms, drawing on this conceptual framework and the findings of the literature review, the research instruments of this study are designed in alignment with the following belief statements:

- Aligning educational outcomes with labour market needs through long-term investments in education and training enhances employees' productivity.
- Combining formal education with well-planned work-based experiential learning and reflective practice develops employability skills and contributes to addressing associated skills gaps.
- Training programs and activities that leverage trainees' sense of competence, relatedness, and autonomy effectively promote the acquisition and development of the right skills.
- Diversification of skills in a workforce can be facilitated through the reduction of existing skill mismatches and gaps.
- The unique challenges brought about by nationalization policies need to be well understood and tackled for effective labour market dynamics and trends that are fit for purpose.

In conclusion, then, the research methodology is designed to benefit from strengths of a mixed methods research design, informed by robust theoretical underpinnings drawing on the Skills Formation Theory, (encompassing the classical Human Capital Theory); the Work-Based Learning

(WBL) Theory rooted in Experiential Learning Theory; and the Self-Determination Theory of Motivation. Taken together, the study's design and methodology uniquely positions the study to provide valid and robust findings that yield actionable insights that can be drawn on by policymakers, higher education institutions and employers, to bridge the skills gap in the GCC.

## **Data Collection Methods**

This study utilizes two primary data collection methods: a quantitative survey in the form of an online questionnaire and qualitative focus group discussions.

### **Quantitative Survey Data Collection and Sample**

#### **Survey Design**

A structured online questionnaire was developed to survey private sector employers across the GCC. The questionnaire was designed to capture employers' perceptions of the technical, transferable, and employability skills of recent graduates. The survey comprises six general questions to gather information about the employers' workplace characteristics, including location, type, size, industry, their role within the organization, and their experience in recruiting or managing graduates. It included both closed-ended and open-ended questions spread over the three main themes of the research, to allow for a comprehensive analysis of the data.

Excluding the six general questions, the questionnaire consisted of 24 closed-ended items rated on a Likert scale (1 = strongly disagree to 5 = strongly agree) and 5 open-ended questions. The closed-ended questions assess employers' satisfaction with graduates' skills, the congruence of educational outcomes with job market demands, and the effects of technological advancements on skill requirements. The open-ended questions sought to capture more detailed insights into employers' experiences and suggestions for improving graduate skills. The respondents could fill the survey in English or Arabic depending on their language of preference. A copy of the survey template is available as Appendix Three.

As mentioned earlier, the items on the survey were informed by the literature review findings and the principles and beliefs underlying this study. They were also purposefully developed to contribute to answering the study's main research questions. All of the research questions identified for Theme 1 were addressed through mandatory selected response questions, ensuring that data would be gathered from all those who complete the survey. All of the research questions for Theme 2 were also addressed in the survey, some by mandatory selected response question, and some which were judged to require a more nuanced response, by free text response questions. The research questions for Theme 3 were addressed in broad terms in the survey and were judged

to underpin all questions, but to be better addressed in detail through the subsequent, Focus Group phase of the research. In this way, the mixed method research design facilitated the use of survey items for research questions best suited to this method.

### Target Population

The survey was administered online and sought to gather data from a random convenience sample of private sector employers in six GCC countries (UAE, KSA, Bahrain, Qatar, Kuwait, and Oman). Clear, verified data on the total number of employers in the private sector in the GCC was not available. Nevertheless, the kind of sampling that was used helped ensure a diverse representation of industries and organization sizes. Ideally, the survey distribution targeted specific roles in these organizations such as heads of human resources, recruitment, or other departments, who work closely with managing, evaluating, and/or training graduates.

### Survey Sample and Response Rate

Upon distribution of the survey, the expected response rate deemed as acceptable by the researchers was 30%, in line with what is specified as an adequate response rate for online surveys by scholars in the international literature (e.g., Nutty, 2008). The survey was disseminated via email using a method of ‘mass distribution’; as, it was sent to a wide audience of employers unidentifiable in number. From the questionnaires that were distributed, a total number of 1402 were clicked on and opened by recipients, thus, indicating the number of surveys that were for sure received by targeted employers and taken into consideration. From these 1402 surveys, 716 of them were returned, which yielded a total response rate of 49.5%. Being above what is expected, the response rate achieved was considered adequate for the purposes of this study. Table 1 and Figure 1 below presents the number of surveys returned per country.

**Table 1 and Figure 1 give the country breakdown of survey responses.**

Country	Number of Survey Responses
Bahrain	201
Kuwait	22
Oman	29
Qatar	15
Saudi Arabia	129
United Arab Emirates	320

Table 1: From Survey - Country breakdown of survey responses

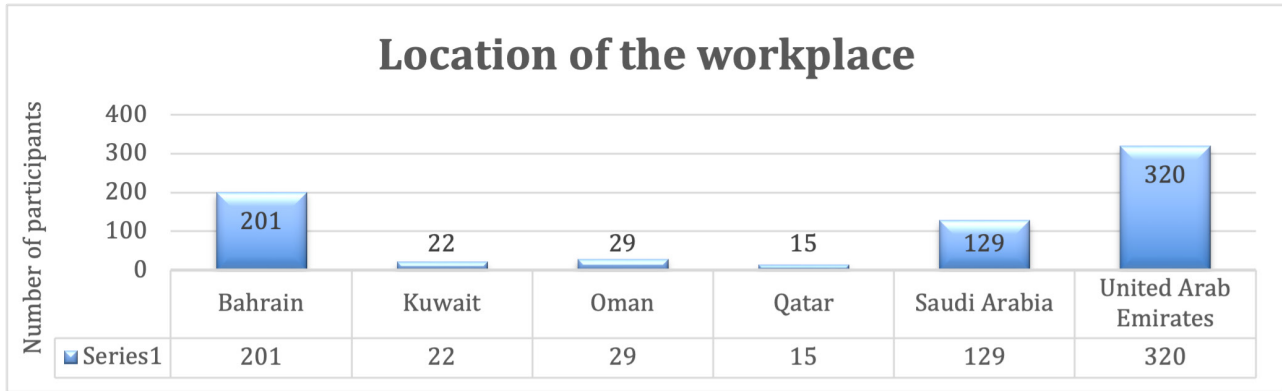


Figure 1: From Survey - Country breakdown of survey responses.

Full details on the make-up of survey respondents can be found in Appendix Four.

### Survey piloting and validity

Considering that the survey instrument was custom developed for this study, its validity and reliability had to be established. As the survey was not long enough to embed multiple items for measuring the same construct, it was not possible to test its internal reliability. Thus, content validity was resorted to, instead, through which survey items were reviewed for their relevance to the main research issues being investigated, and for their comprehensiveness in terms of representing all significant topics that need to be represented and not leaving anything out (Karnia, 2024).

The validity of the survey was also assessed using a pilot study, which was conducted on 13 participants from three of the GCC countries: UAE, Saudi Arabia, and Bahrain. The participants reflected the intended population, represented several industries in the private sector, and held different positions (e.g., Human Resources Managers, Chief Executive Officers, Quality Assurance Directors, Lecturers, Business Owners, etc.). Through the pilot study, the participants were provided the opportunity to comment on the content of the survey, its clarity and relevance to the research goals. This helped identify minor areas of improvement in the survey, which the researchers addressed by revising a few of the questions for greater accuracy and clarity.

### Qualitative Research Design, Sampling, and Data Collection

To complement the quantitative data from the survey, focus groups were conducted to gather qualitative in-depth insights from private sector employers. Complementing the quantitative

data, the focus group discussions aim to delve deeper into the qualitative aspects of employers' perceptions. Focus groups are an excellent source of rich, constructive data that facilitate decision-making and inform evaluations, developments, and revisions for improvement. (Kvale, 2007; Sagoe, 2012).

The topics that the focus group discussions covered included the employers' perceptions on current and future skills needed in the workforce, the role of higher education institutions in meeting these needs, and challenges faced by recruiters in finding qualified employees. The topics to be covered, and specific research questions to be addressed, were designed to ensure full coverage of research questions, taking into account the evidence that had been able to be sourced for the literature review, and some initial responses to the online survey that had been received at the time that the focus group topic guides were being designed. Consequently, focus group topics targeted research questions where it was judged that the first two data collection methods were less likely to yield usable data.

Theme 1, Current and future skills needs, was judged to have been addressed through the survey. Theme 2, Education and Training Provision, was judged to have been addressed via the survey at a broad brush level, but further investigation via focus groups was thought to be useful to explore the nuances of responses. Theme 3, Recruitment practices and challenges was judged to have been indirectly addressed via the survey and consequently the focus groups were the primary source of data on these research questions. Focus group discussions need a starter question that allows participants to find their voices and feel comfortable in the discussion, and it was decided that a broad question on current skills' needs should be used for this purpose; this would have the added advantage of providing deeper data to back up and provide explanations of survey responses on that question.

In the light of analysis of coverage of research questions through the first two data collection methods, it was decided that focus groups should primarily aim to gather more nuanced data on employer views of the current ability of education higher education institutions to supply the skills that they need. Exploration of this theme would also have the benefit of providing context for discussion of Theme 3. Focus groups would complement the literature review in providing data on the third research theme of the project, impact on the ability of employers to recruit skilled labour and the impact on recruitment practices and productivity where they cannot.

The focus groups comprised phase 3 of the research project, running concurrently with phase 2.

All focus groups took place online between December 2024 and January 2025. Focus groups were conducted by the project’s two senior researchers. Researchers used topic guides that included discussion questions and suggested prompts and probes, which supported standardized yet flexible discussions tailored to the needs of individual participants. These structured discussions enabled the exploration of nuanced themes that are crucial to understanding the complex dynamics described by the quantitative findings.

All the data elicited from the focus group discussions was analyzed thematically, as will be elaborated on in the ‘Data Analysis’ section.

### Target Population

Focus group participants were selected from the survey respondents who indicated their willingness to participate in further discussions. A total of 6 focus groups were conducted, each consisting of 8-10 participants from various industries. Four of the 6 groups comprised participants from various countries in the GCC; while the remaining 2 groups were country specific, with one for participants from the UAE and the other for participants from Bahrain. The composition of the focus groups was primarily determined by the availability of participants, with higher interest from the UAE and Bahrain necessitating country-specific groups. Prospective participants who would represent a spread of industry sectors, seniority levels and regional contexts were sought, but as is widely acknowledged in academic literature on research with employers, employer engagement in research is notoriously difficult to achieve, as they are often dealing with time (and budget) constraints and may not perceive a direct benefit from participating in research. This often leads to difficulties in securing their involvement (Jackson et al, 2016)<sup>1</sup>. In this context, securing participants for a full planned complement of six focus groups represented a significant and positive level of engagement with these issues on the part of GCC employers.<sup>2</sup>The total number of participants for all the focus groups was 53.

**Table 2 gives the country breakdown of focus group participants.**

Country	
Bahrain	15

1 For example, in this study of Australian employers’ views of work-based learning in higher education, Jackson et al emailed 4100 employers, received 112 usable survey responses, and secured engagement of 17 participants in 2 focus groups.

2 The subsequent amount and quality of their feedback, with deep knowledge and commitment shown (as documented in the Findings section of this report) , bears out this conclusion.

Kuwait	4
Oman	3
Qatar	3
KSA	12
UAE	16

Table 2: Country breakdown of focus group participants

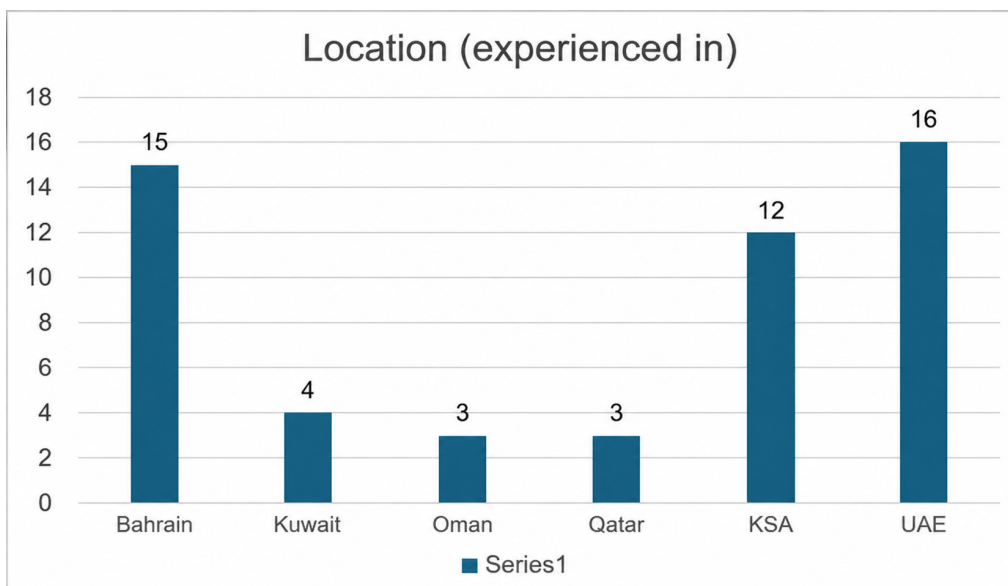


Figure 2: Country breakdown of focus group participants

A variety of industry sectors were represented, the largest of which were education and training and engineering (including the energy sector). A variety of company sizes were represented, with most respondents from companies with between 250 and 3000 employees. Most participants were very senior in their organisation, with MDs/CEOs and managers of 11-50 employees the top two groups, followed by HR Managers. Most were very experienced in their role, industry and in working in GCC countries.

Further details on focus group participants can be found in Appendix Six.

## Focus Group Structure and Credibility

Like the survey items, the focus group questions, in addition to the thematic analysis of its findings, were grounded in both the theoretical and conceptual frameworks of this study and its literature review. Experienced moderators facilitated the focus groups, and they used a semi-structured approach. A topic guide, consisting of a structured set of questions directed the discussions while permitting the exploration of new themes and insights as they surfaced. A copy of the topic guide used is included in this report as Appendix Five.

The focus group sessions lasted 50 minutes with participants having the option to conduct their discussion in either English or Arabic. Five of the six groups were conducted in English and only one was conducted in Arabic. The Arabic transcriptions were translated in English for analysis purposes. The first focus group was originally intended as a pilot; however, considering that it did not result in any modifications to the structured set of questions leading the discussions, and given the fact that it provided extremely rich and relevant data, it was utilized with the remaining 5 focus groups as a significant source of data.

Once all focus groups transcriptions were completed and the moderators' notes documented, they were shared for cross-examination and comparison prior to work on the thematic analysis of the data was initiated. This helped ensure the confirmability and credibility of the focus groups (Liu *et al.*, 2023), which were further warranted through purposeful sampling of the participants (Etikan *et al.*, 2016); as, all those who took part in the discussions were private sector employees who had filled the survey, were knowledgeable about and interested in topics related to the research questions and were keen on providing rich and in-depth insights on certain aspects related to them. Thus, they purposefully contributed to fulfilling the researchers' main aim of obtaining a detailed understanding about specific participant perceptions instead of generalizing their results to broader populations.

## Data Analysis of Quantitative and Qualitative Data

This study employed both quantitative and qualitative data analysis methods, tailored to the nature of the data collected. As the data from the questionnaire was derived from both closed and open-ended items, both methods were used, whereas only qualitative analysis was implemented in the case of the focus groups' data. In analysing and presenting findings, qualitative and quantitative data were integrated, and were used in cross-validation and triangulation. Integrating findings

in this way allowed the study to gain full benefits from its mixed methods approach, providing a comprehensive understanding of the research topics. In the Findings sections of this report, the extent to which findings are confirmed across the literature review, quantitative survey and qualitative focus groups is reported. The convergence of findings across methods provides convincing evidence that the insights gained are robust.

### **Analysis of Survey Data**

We analyzed quantitative data from closed-ended survey items using simple descriptive statistics, which involved calculating response frequencies and presenting these as percentages. The justification for limiting the quantitative analysis to this method is that, as scholars confirm, simple descriptive statistics are ideal for reports intended for widespread dissemination, as such statistics are easy to understand by a wide audience (Glewwe & Levin, 2021). Additionally, when the objective is to present a general overview of data rather than an in-depth analysis, which happens to be the goal of the researchers from the survey's closed-ended items, simple descriptive statistics are sufficient. As, these statistics help in providing initial insights in terms of identifying patterns and trends in the data, thus serving as a fundamental starting point for further and more in-depth and complex analysis (Glewwe & Levin, 2021).

It is important to note, though, that although the analysis of the closed-ended items is presented quantitatively through the simple descriptive statistics, the interpretation of these statistics was conducted qualitatively. The reason for this is that such an interpretation can enhance understanding by providing detailed descriptions that reveal the subtle complexities within data sets. This approach yields holistic insights into phenomena that quantitative analysis might miss, which helps create a more complete picture of research results (Sandelowski, 2000).

In terms of responses to the open-ended items of the survey, these were subjected to a content thematic analysis process identical to that relied on in the analysis of the focus group data, as described below. Consequently, findings from open-ended survey questions are reported alongside focus group data that addresses the same issue.

### **Analysis of Focus Group Data**

Whilst survey responses may require some data cleansing and preparation before analysis, it is certainly true of focus group data that there are initial processes that must be followed to ensure

that the data itself is robust before it is analysed. In this case, these processes involved recording and transcription, researcher note-taking and checking. This resulted in meticulous transcriptions that, along with the open-ended survey responses, were subjected to inductive analysis. Analysing qualitative data involves a number of processes: coding data; condensing into categories and themes; interpreting (drawing conclusions) and verifying interpretations; and finally presenting data. This analysis process is iterative and cumulative, with processes overlapping through several rounds of analysis and re-analysis. The analysis is complete when the data appears 'saturated': that is, further passes through the data reach the point where previous analysis is confirmed and no new insights are gained (Miles et al, 2019).

The researchers used this type of analysis to identify groups of meanings and themes that resulted from the data itself, while continually refining their interpretations based on emerging insights (Haynes, 2012). Content thematic analysis, thus, was employed in this process and it was implemented in a series of multiple focused steps. First, the research team began by transcribing the focus group discussions exactly as they occurred to guarantee precise records. Second, they conducted multiple readings of both transcriptions and survey responses to identify significant statements and themes, which were captured through a thorough process of data coding and categorization based on the research questions, literature review and theoretical framework. Third, they reviewed the resulting codes and categories, relying on a cross-checking exercise, to ensure that the emerging themes accurately capture the essence of the data. As stages of analysis proceeded, data were condensed to facilitate clarity and allow succinct presentation of findings. Finally, the themes were interpreted qualitatively, identifying in the process relationships between different themes and contextualizing the findings within the broader literature on skills development and higher education in the GCC countries.

Qualitative data gathering exercises are necessarily reliant on how researchers conduct research and how participants respond: data are contingent on context and socially constructed between the researcher and research participants. With regards to deriving findings and conclusions from the data, it is the quality and richness of the data that ensures validity, and a rigorous analysis process such as that described above seeks to understand and interpret.

Throughout the whole research process, the researchers validated their interpretations by practicing reflexivity, critically assessing their own role and influence during the research process. Reflexivity means being conscious of how a researcher's personal biases, viewpoints, and interactions with participants can affect the data and its interpretation (Haynes, 2012; Finlay, 2002). This practice helped ensure the integrity and credibility of the research results.

## Data validation and triangulation

The three phases of this research, employing distinct methods, facilitated the collection of comprehensive data, enabling effective cross-validation and triangulation of findings. Throughout this report, the extent to which findings were replicated across the literature review, quantitative survey and qualitative focus groups is reported. Each method was selected to leverage its strengths in examining specific research questions. The convergence of themes across methods provides robust evidence of the validity and reliability of the findings.

Overall, then, the study's design and methodology ensure that it provides valid and robust findings. Use of a planned and well-designed mixed-methods approach to data gathering and analysis, underpinned by a robust theoretical framework, has enriched the study and provided a comprehensive view of the skills gap and its implications for GCC employers.

## Ethical Considerations

To ensure that the findings on the skills gap and its implications for GCC employers were robust, adherence to high ethical standards was an imperative of this research study. To achieve this the researchers implemented several measures to ensure voluntariness, confidentiality, and anonymity of all participants' data. Whether the participants were involved only in the survey or in both the survey and focus group, the researchers required them to provide their informed consent. The participants were clearly informed that their participation in the study was voluntary and that opting out of the study at any stage would not lead to any negative consequences.

Additionally, the participants were assured that all their information and responses would be used solely for research purposes and that the raw data would be securely stored, accessible only by the research team. It was also made clear to them that no information in the final report of the study would be attributed to them in any shape or form. Confidentiality was also maintained by omitting individual names from the transcript data and making sure that no quotes were linked to specific people. The only exception to this was the last survey question, which gave participants the option to share their contact information if they wished to receive more details about the project. This option clearly stated that by providing their contact information, participants were giving up their right to anonymity.

During the focus groups, participants were informed that discussions would be transcribed and could request the omission of any comments they preferred not to document. All participants

attending the focus groups were informed beforehand of the research project and its purpose. The same applies to those who only filled the survey. This information was communicated to them through several channels such as via email, WhatsApp, or through the information in the opening page, and at the end, of the survey they participated in. It all depends on the medium of communication they were using and through which they received the survey or focus group invitation along with the accompanying project information sheet.

Senior researchers cleaned focus group transcriptions of personal data, as well as inaccurate or superfluous data such as wrongly transcribed acronyms or repeated words. The cleaned and anonymised transcriptions were used for thematic analysis, and where this report contains quotations from focus group participants, it is cleaned and anonymised data that is quoted. Collectively, the ethical practices followed by the research team ensure the integrity and acceptability of the research findings, providing assurances across participant confidentiality, researcher reflexivity in both conducting research and analysing the data gathered, and analytical and presentation methods that allow cross-validation of findings across the three data collection methods.

## Findings

### A note on the structure of this section

The following three sections present the findings of our primary research methods, the employer survey and focus groups, and data from the literature review is used to contextualise and back up the primary research findings.

The section is organised by research themes, with each section covering one theme. Within each section, sub-sections are usually arranged by research question, but in some instances, the data has suggested that more precise sub-headings would be useful (for example, in the current skills needs identified by employers).

Across the primary data collection methods and the literature review, there was, necessarily, some commonality and overlap. To some extent, all three research themes were addressed by each of the three data collection methods. Data for many of the research questions were gathered from all three research methods, and where this is the case, the findings from each method are presented together, integrated so that the overall picture is clear and the way that different data

collection methods have supported each other is exhibited in the presentation of the findings. A few research questions were not suitable to be addressed by all three research methods, and so were addressed solely, or in more depth, by one or two of the methods, and in those subsections, there is only discussion of findings from the relevant research methods. How the three data collection methods collectively address the research questions is summarised in the Content Validity Table in Appendix 2.

## **Theme 1: Current and future skills needed in the workforce – findings**

### **Current skills needs**

As we noted above, the literature review highlighted the need for technical, transferable, and employability skills across various economic sectors in the GCC, noting that employers in GCC countries face skill gaps among graduates, including employability skills like adaptability and innovative thinking, transferable skills like communication and digital skills, and technical skills relating to new and emerging technologies such as those associated with the use of AI or the need to develop more sustainable business models.

Section B of the online survey was designed to gather data directly from employers on their views of their skills needs and the skills gaps that they find in new graduates. Focus groups also asked participants to share their views on graduate skills' gaps, with particular reference to employability or soft skills. In exploring employer views of their skills needs, graduate skills' mismatches, and how higher education should address these mismatches, the study draws directly on the Skills Formation Theory, as noted in the Methodology section of this report. This influential theory encompasses the classical Human Capital Theory that highlights the value of investments in education and training for enhancing productivity of employees (Becker, 1964; Schultz, 1961); and underscoring the necessity of aligning educational outcomes with labor market needs for driving economic growth. As we will see in our findings, especially in Theme 1 and Theme 2, the employers who responded to our survey and took part in our focus groups expressed views that were entirely in line with this theoretical perspective: for them, the theory is a lived experience.

**Survey responses are detailed below.**

As explained earlier, the quantitative data from the closed-ended survey items were analyzed using simple descriptive statistics; however, they were interpreted qualitatively. Throughout the findings section of this report, survey response data is presented item by item followed with a qualitative interpretation of what they indicate.

**Findings from the online survey**

Item 7 in the online survey required the respondents to highlight the main transferable and employability skills and aptitudes that they view as essential to their organizations. This item elicited the following responses in Table 3 and Figure 3.

<b>Transferable and employability skills and aptitudes essential to your organisation</b>	<b>Count</b>	<b>%</b>
English language and business writing and communication skills	297	76%
Basic and applied numeracy	134	34%
Digital literacy and adaptability with digital tools and software	278	71%
Interpersonal and teamwork skills	320	81%
Dependability, time management and attention to details	258	66%
Critical thinking, problem-solving and creativity	280	71%
Work-related acumen and good decision-making	246	63%
Resilience	237	60%
Ethical conduct	277	70%

Table 3: From Survey - Essential Skills and Aptitudes in Organisations, as identified by Respondents.

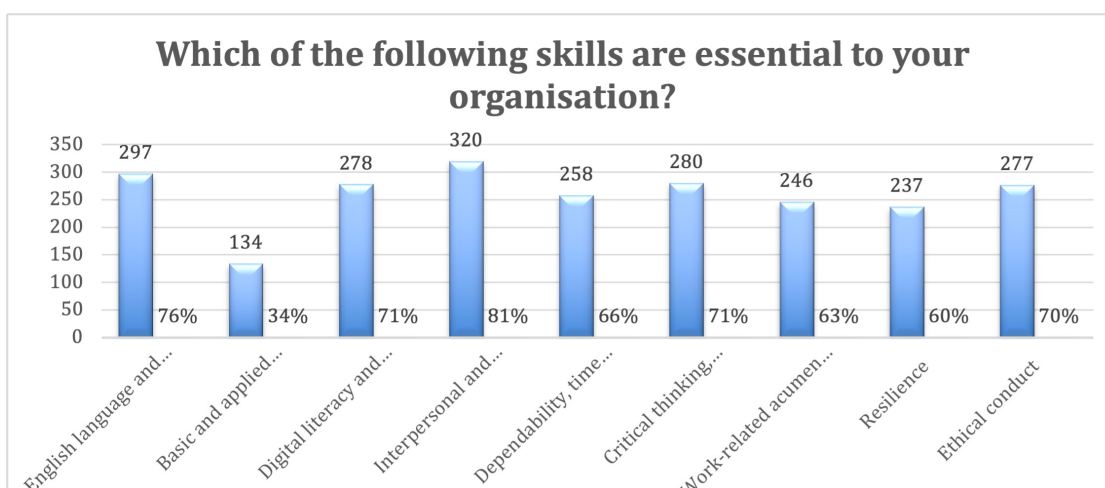


Figure 3: From Survey - Essential Skills and Aptitudes in Organizations, as identified by Respondents.

Employers who participated in the survey indicated that among the most vital transferable and employability skills for their organizations, which they and other employers hold with high esteem, are interpersonal and teamwork competencies, which according to the collected data had a response rate of (81%). This is followed with proficiency in English along with business writing and communication abilities, as indicated by (76%) of the survey participants, which, thus, highlights the high regard employers have for effective communication within their work settings. Digital literacy and adaptability to newly emerging digital tools and software, together with critical thinking, problem-solving abilities, and creativity, were also rated highly by (71%) of those surveyed, alluding to the increasing value of technological competence, creative thinking, and other relevant skills.

Other skills listed in the survey were also deemed as essential and these include dependability, effective time management, and accurate attention to detail (66% response rate) and job knowledge and sound decision-making abilities (63% response rate). Resilience was also highlighted as important by (60%) of the respondents, which indicates a need for a workforce that is capable of facing and dealing with challenges as they arise. This is in addition to the need for employees who exhibit moral values and ethical conduct, as indicated by the (70%) response rate of survey participants.

Overall, thus, all the skills listed as options in Item 7 of the survey were considered as essential to professional settings, with the mere exception of basic and applied numeracy that came in at (34%) in the item ratings, which in comparison to the other skills and aptitudes is relatively low. This raises the question of why in particular this aptitude was considered as less essential to employers than the rest on the list. This could possibly be attributed to the fact that, due to its nature, this aptitude may have been considered by the employers as being more necessary and essential to some industries and businesses than to others; while, on the other hand, the other skills happen to be nowadays essential to almost all industries. However, this remains to be an area worthy of more in-depth analysis.

Item 8 required from the respondents to rate- from a provided list- skills of recent graduates who joined their workplace. The rating was to be done on a scale of 1-5, where 5 represented a rate of 'excellent'. The results of the respondents' ratings were as follows as demonstrated in both table 4 and accompanying chart 4.

Rating	English language and business writing and communication skills	Basic and applied numeracy	Digital literacy and adaptability with digital tools and software	Interpersonal and teamwork skills	Dependability, time management and attention to details	Critical thinking, problem-solving and creativity	Work-related acumen and good decision-making	Resilience	Ethical Conduct
1	151 (46%)	24 (7%)	53 (16%)	27 (8%)	7 (2%)	19 (6%)	9 (3%)	5 (2%)	32 (10%)
2	57 (17%)	104 (32%)	42 (13%)	52 (16%)	10 (3%)	9 (3%)	11 (3%)	14 (4%)	28 (9%)
3	32 (10%)	34 (10%)	126 (39%)	39 (12%)	21 (6%)	27 (8%)	9 (3%)	14 (4%)	25 (8%)
4	34 (10%)	28 (9%)	25 (8%)	136 (42%)	23 (7%)	20 (6%)	20 (6%)	14 (4%)	27 (8%)
5	15 (5%)	12 (4%)	29 (9%)	44 (13%)	127 (38%)	29 (9%)	23 (7%)	20 (6%)	28 (9%)

Table 4: From Survey - Rating of graduates' skills they recently employed

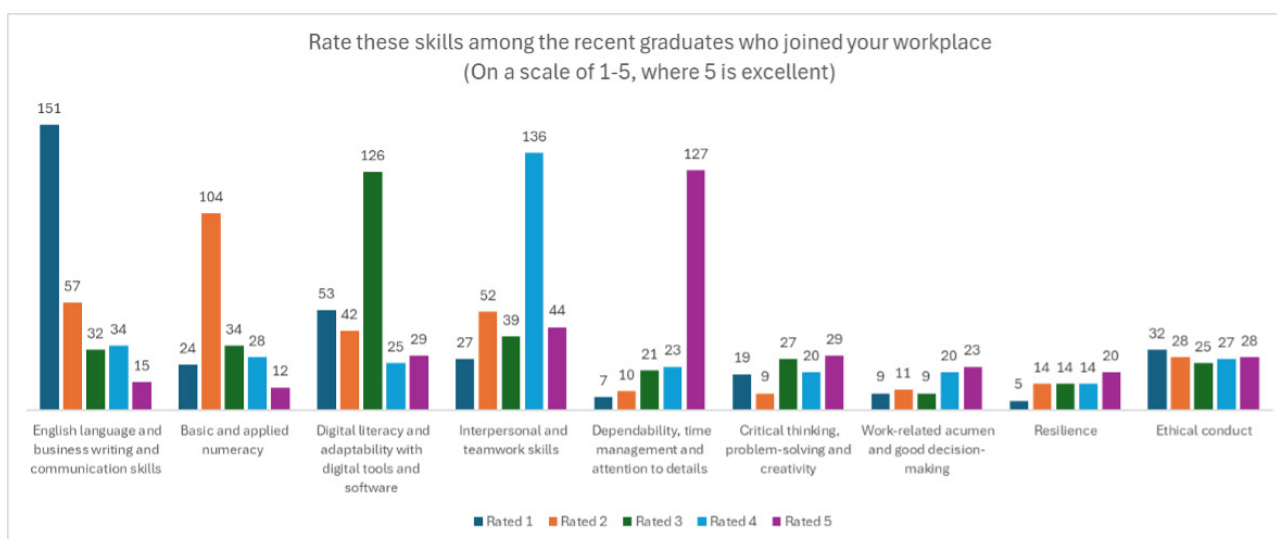


Figure 4: From Survey - Rating of graduates' skills they recently employed

Reviewing the resulting statistics from the employers' ratings of graduate skills, it is easy to spot a couple of red flags especially in terms of communication and numeracy skills. This is indicated by the significant percentage of employers (46%) rating English language and business writing and communication skills as poor (a rating of 1), and similarly the considerable percentage of respondents (32%) rating basic and applied numeracy as fair (a rating of 2). These ratings indicate an area of improvement in terms of graduates' effective communication and numerical application and analysis competence within professional contexts.

At the same time, however, the collected data indicate a few areas of strength when it comes to interpersonal and teamwork skills and dependability, time management, and attention to details, where the first group of skills was rated by (42%) of the employers as being very good (4) and by (13%) as being excellent, and the second group rated by (38%) of the employers as being excellent. These results point to good preparation of graduates in terms of collaborative work and critical skills that are needed for quality performance and productivity at work.

As for the remaining skills that were rated by the respondents, particularly digital literacy and adaptability as well as critical thinking, problem-solving and creativity, these either received an average rating (e.g., 39% of employers giving a rating of good or 3 for digital literacy, and 16% giving a rating of poor or 1) or were given mixed ratings ranging from poor to excellent but by only insignificant percentages of employers (e.g., 9% of employers rating critical thinking, problem-solving, and creativity as excellent or 5, and 6% giving a rating of poor or 1). These results indicate room for improvement in terms of the development of these skills in graduates in the GCC context. Similarly, ethical conduct and resilience received mixed ratings ranging from poor to excellent and, again, by insignificant percentages of employers (10% giving a rating of poor or 1 to ethical conduct, and 9% giving a rating of excellent or 5; and 2% giving a rating of poor or 1 to resilience, and 6% giving a rating of excellent or 5). These results indicate that some graduates are very strong in terms of exhibiting the right ethical conduct and handling challenges, whereas there are others who are extremely weak in doing so. Such a discrepancy signals the need for improvements in developing graduates' related skills and attitudes.

Item 9 served as a follow-up question to Item 8 and requested from the respondents to list any additional comments they may have on the skills needed by their organizations. This was a non-mandatory free text response question; responses included a high proportion of nil/none responses (55 of 206 responses), indicating that all necessary skills had already been mentioned in questions 7 and 8. Respondents took the opportunity to reiterate the importance of skills that had already been mentioned in questions 7 and 8. Responses also showed a high level of congruence with comments made in focus group discussions.

The responses reflected a wide range of relevant themes, among them ones concerning the need for greater emphasis on communication skills, both verbal and written. There was also a call for the development of graduates' technical and analytical skills through enhancing their proficiency in related tools and software, such as those used in data science, data analysis, and AI fields along with specific industry-related technologies.

Soft skills were also referred to in the respondents' comments, including critical thinking, emotional intelligence, problem-solving, and flexibility. The comments highlighted the need for greater emphasis on the development of such skills especially at a time and age where the modern workplace is subject to continuous changes. Other skills that were also emphasized relate to work ethics and professionalism (e.g., commitment and punctuality, accountability and responsibility, continuous learning and development, leadership, taking initiative, and risk-taking) in addition to emphasis on the need for displaying a positive attitude in the workplace, and exhibiting respect for cultural diversity and knowledge of how to effectively work with multi-national teams.

Finally, many comments referred to the importance of providing graduates with sufficient and meaningful practical (hands-on) training and experiences, whether in the form of full-fledged internships or as activities built in within their academic programs and courses. This represented a call for the establishment of stronger links between graduates' theoretical and academic experiences on the one hand and practical experiential work in the field on the other.

## **Focus group findings**

The section that follows details findings from the focus group, and discusses the implications of these, in relation to the findings (detailed earlier in this report) of both the literature review and the online survey.

### **Focus group findings: employability skills**

Building on literature review findings, and taking into account the available interim data in survey responses, the focus group design included an introductory question that asked participants to talk about the soft (or other) skills that they found to be most lacking in recent graduates.

The literature review identified employability skills as a separate category of skills, and defined these as distinct from transferable skills, representing a set of attitudes and aptitudes which could be developed within or outside of employment, for example, good timekeeping, personal presentation and basic communication. The literature review noted that these skills are a subset of transferable skills and behaviours such as time management, ability to work under pressure, job acquisition, negotiation, presentation and interview skills. Analysis of international literature showed that these skills are not only crucial, but often lacking across GCC countries and other

nations in the MENA region (WEF, 2018, p9).<sup>3</sup> This is in line with international trends that have been documented for some time, that see employers demanding graduate applicants with relevant experience, evidence of work-readiness and the non-technical skills to operate effectively in the workplace (Edwards et al. 2015).

The importance of employability skills for GCC graduate outcomes has been established in a 2021 study that found conclusive evidence regarding the effectiveness of generic skills development at the higher education level in enhancing graduate outcomes in, amongst other things, employability, skills for promotion, and improved academic or workplace performance (Matu and Paik, 2021). These findings are borne out by the importance placed on these skills by our current study's focus group participants. All 6 focus groups mentioned **work ethic** as an important attribute that they found to be missing in recent graduates. Often, participants appeared to link this to other employability attributes such as timekeeping and **time management**, which were mentioned as a problem by 5 of the 6 focus groups. Participants defined these as the ability to turn up for work on time, ready to work, and to complete work to given deadlines. One participant provided a very detailed description of the issues faced by employers in the education sector when new graduates begin a teaching career:

I would say the hardest thing to teach, maybe at university or maybe it's through direct relevant experience that they needed to become teachers, was work ethic. In terms of knowing the rigours and challenges of becoming a teacher. We still have a relatively high drop-out rate of student teachers who don't make the end of the degree course or then drop out of teaching after a year or, you know, I think that their five-year statistics aren't good either. It's just a very hard job and it's almost the most difficult thing to prepare anyone for that because you don't really know what it's like until you get in there. We found in the UAE in particular that teachers we had with us, you know the on-the-job training, that's quite tough because how do you teach it effectively? (FG 5)

This problem, of a lack of understanding of what work involves, and a consequent lack of apparent commitment to work was mentioned by participants in all focus groups, and from a variety of employment sectors. Words like 'responsibility', 'focus' and 'seriousness' were used, and more than one participant characterised this as a 'lack of accountability'. This was felt to be linked to a

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<sup>3</sup>There is growing evidence of a sizeable skills mismatch in the MENA region, as young people fail to acquire the skills needed to succeed in today's jobs, let alone tomorrow's. Nearly 40% of employers in the MENA region indicate that skills gaps are a major impediment to business growth and several countries in the region fall below the global average in the ease of finding skilled employees according to business leaders [...] The skills gap exists across basic skills, such as creative and independent thinking, problem solving skills and soft skills [...] The region is also starting to experience inter-generational differences in styles of work and communication, which will require not only careful attention to employability skills but also towards managing inter-generational change.

lack of understanding of the implications for others and the employer. One participant provided a vivid picture of the issue:

Time management, which is very crucial, especially when they are committed to specific deadlines. They need to commit to them. It's not a homework, if you miss it, you will lose a few points. It could lead to losing millions of dollars. It could be delaying other people's job because they are depending on their input at this time. (FG4)

This accords with survey findings, as detailed above, where 66% of survey respondents identified dependability, time management and attention to detail as skills essential for their organisation, with slightly under half of respondents (45%) appearing happy that graduates come well-equipped with these skills, which is a good result; however, the point of the matter remains that the rest of the respondents (55%) did not express the satisfaction towards graduate exhibition of the same skills. Similarly, 70% of survey respondents identified ethical conduct as essential for their organisation, with only 17% identifying these skills as well-exhibited by graduates. In free text responses to survey question 9, 16 respondents mentioned skills and attitudes like work ethic, commitment and dependability.

Underlying these issues, 4 of the 6 focus groups talked about graduates' apparent lack of **motivation**, drive or sense of purpose. Graduates were characterised as 'signing in and signing out':

We find that they don't have passion. It's about you know just coming in and signing in and signing out. There's no love for what they do or pride in what they're doing. (FG6)

One participant suggested some reasons for this:

One of the main things we've faced is that we feel that the fresh graduates lack civic responsibility or purpose-driven motivation. They seem to not really understand that their role really contributes to a broader goal, whether it's national success or community impact or for a bigger purpose. (FG2)

It was posited that this lack of passion, drive and sense of purpose may be a generational issue:

I don't know whether entitlement is the right word. I do a lot of work around the different generations in the workforce now and I think from an older generation, I probably do label it as entitlement, but it's a view of work and I think the view of work has changed. I think that reflects also in what [x] was saying about passion for it as well. Just the view of a job is different from what we used to have of having that passion. there is the view that the job owes them something, not necessarily the other way around. I think that can be viewed as entitlement nowadays. So I think that comes

back probably to [y]'s perspective of work ethic. So it's all tied up together. It's not very easy to be able to resolve that as one singular thing, but there would definitely be benefits from students being prepped more on that before they come into the workplace. (FG6)

This comment also reiterates a sub-theme that was mentioned in 3 of the groups, and that is that so-called 'soft' or employability skills cannot be developed in isolation, but must be addressed together. Other focus groups helpfully suggested ways that such skills gaps could be addressed: we will return to this question in a later part of this section.

One issue that was raised in three focus groups may point to an area of employability skills that is unique to the Middle East, and that is the need for workers to have an understanding of other cultures:

we are talking about Saudi Arabia and other GCC countries where today a lot of international companies are in the market, so they are exposed to people from different backgrounds, from different cultures, from different religions. (FG4)

This was felt to be a problem for employers if the education system did not prepare young people:

In the Middle East, in particular, you've got sort of multicultural workplaces. So what it can be working within multicultural workplaces if their education process has perhaps been single cultural? (FG6)

Lack of understanding of other cultures was felt to affect the graduate's ability to communicate appropriately within the workplace:

They don't understand other cultures, so the communication gaps that are happening and forming. (FG3)

## **Employability skills: Summary of findings**

Overall, findings from the literature review, survey and focus groups suggest that graduates lack essential employability and transferable skills, such as work ethic, time management, and communication.

### **Focus group findings: transferable skills**

Transferable skills were the second category of skills identified by the literature review. These skills have been identified in major international labour market reports as being those which are common to employers regardless of industry. They are not tied to a specific discipline but are

useful for most job roles. The review noted that this category may include literacy, numeracy, communication, teamwork, problem-solving, analytical and IT User skills and information literacy, and the ability to work in a second (or third) language.

## **Communication**

A perception that recent graduates lack communication skills was expressed in all six focus groups, often with multiple participants explaining the aspects of communication skills that they felt were most lacking:

Taking it from here, the local point of view, because I have worked in Bahrain for over 30 years in the educational sector, and I find that if we're talking about the local population, their major drawback would be when it comes to language, which kind of effects everything else that they are dealing with in the workplace. (FG3)

Similarly, in free text responses to survey question 9, communication skills were the most frequently mentioned skills lacking in graduates, with 24 out of 155 respondents who identified a skills gap using the opportunity to reiterate that the ability to communicate was the main skill that they found to be lacking in graduates. Several focus group participants were keen to point out that in lacking communication skills, they do not mean that graduates lack a single skill, but a range of inter-related skills:

So when we when we talk about communication, I agree with you it's just a very huge scale. It's not only the verbal communication or the way they actually address themselves, it's also how they understand others and how they perceive others when they are talking to them. (FG3)

Specific communication skills mentioned included presentation skills (to present and explain to customers):

What I started to develop skills within my workplace because people do not have it previously one of them is presentation skills [...] So why I'm saying presentation skills? When I went to clients, high end clients, I call them Tier 1 clients, I ask my employees to introduce the new products, a new way of working and our strategy for 2025 in the front of these top clients. I saw the presentation skills, the way they are presenting, the way they are doing, interpersonal skills, having to stand up and speak in front of the screen was very bad. (FG1)

Discussion skills, to support effective engagement with colleagues were also felt to be lacking, and

indeed many of the comments made related to skills in oral communication: not just speaking, but also listening and responding, for example, by asking relevant questions. The ability to speak to others in an appropriate professional manner was mentioned by more than one participant. Written communication skills were also mentioned.

I think the number one soft skill that people are lacking, especially those who are fresh graduates or new joiners to the workforce, is communication. And I always say communication, communication, communication. It's the most important skill that people needs to acquire in terms of ability to ask the right question, to speak in the most appropriate way, let's say tone or way of speaking to different levels of employees or people, and also their ability to listen, not only to speak and also their ability to ask the right questions. (FG4)

This was an area where focus group participants expressed nuanced and thoughtful explanations of both the causes and the effects of the perceived lack of skills. Several participants noted that one of the things they perceived to be lacking was the ability to understand another's viewpoint. It was felt that young people could not understand the viewpoints of those in other teams. Crucially, more than one participant noted that poor communication seemed to stem from a lack of what they called 'social intelligence', the ability to understand other people, and in particular, to understand people from other cultures.

The young generation that are leaving schools right now are not equipped with enough understanding of the personalities of other people, so it's a lack of understanding the social communication links between people. They have a cultural problem that they are facing. They don't understand other cultures, so communication gaps are happening and forming. (FG3)

A few participants indicated that they felt that this stemmed from the use of social media and the prevalence of online interactions, particularly since the pandemic.

What I have seen and what I've experienced with the young students or graduates is a difference between pre and post COVID, which has impacted and affected their communication skills, as they are mostly passive behind computers. It could be that their technological skills are very high. However, this has negatively impacted their communication, the ability to express themselves clearly. Well, I can say that in reality now there is a gap. So yeah, but we just think it's communication in writing but it's in all types of expression; there is just no balance between their skill in using technology and their communication skills with others. (FG5)

In focus groups, two groups made specific mention of the need for graduates to be able to communicate in English, citing practical reasons (many colleagues in the workforce will be English speakers, including some senior staff); commercial reasons (English language skills needed to communicate with customers) and industry-specific safety reasons (health and safety manuals in the energy sector tend to be written in English).

## Communication skills: Summary of findings

In summary, then, gaps in communication skills were found to be a problem across all three data sources. The literature review identifies that communication skills are seen as key to enhanced work performance, not just in GCC countries, but globally (Noah & Aziz, 2020; Ahmad et al., 2019). In survey responses, English language and communication skills was the second most important group of skills identified by respondents, with 76% of respondents identifying these skills as essential for their organisation, and more than 60% of respondents identifying these as lacking in graduates.

## Focus group findings: Personal, learning and thinking skills

The literature review reminds that repeated ILO reports on skills (for example, ILO, 2021; ILO, 2024) identify personal learning and thinking skills as one of the key skills gaps faced by employers in GCC countries. These skills can be categorised in a number of ways, but are seen as useful (and indeed essential) in most job roles. In this study, analysis of focus group responses suggests that employers across GCC countries see skills related to **critical thinking, problem solving, creativity**, and the ability to apply these skills in **teamwork** as an integrated set of skills. Some participants made this point explicitly, making comments such as 'it's a package and it has to be harmonised and synchronised (FG4), 'It's all tied up together' (FG6); and 'most of the soft skills, they are integrated, so we cannot focus on one soft skill' (FG5).

All focus groups also mentioned the need for graduates to have developed better teamwork skills, with one participant explicitly suggesting that although formally part of the higher education curriculum, they may not be taken seriously by students:

teamwork, we do have that for example in the university, like a group project or something like that. But then in reality they don't really do it sometimes in groups, and they don't really focus on that. (FG1)

Another participant suggested that the issue is that the local culture tends to be individualistic:

Our team working is lacking big time. People are more focused on individual achievements rather than the team achievements. (FG4)

Participants who commented further on this made specific mention of the ability to work in teams to solve problems:

Problem solving - being able to look at a problem, break it apart into its smaller parts, identifying solutions that may need to be addressed, and then being able to come back to that and rework. And in a team environment, so it probably goes with collaboration as well. You know, so how do we do that? How do we do that individually? How do we do that collectively? And how do we come back and tackle it? (FG2)

This reiterates the survey findings, where teamwork was the top skill identified by employers as essential to their business, but over 20% of employers identifying this as lacking in graduates.

Critical thinking, problem solving and creativity was the fourth top important skill identified by survey respondents, with 71% of respondents identifying this as essential for their organisation, and just under half of respondents indicating that they were satisfied with graduates' level of these skills. Five of the six focus groups mentioned the ability to think critically and creatively, break down a problem into component parts, and work independently or with others to solve that problem, as one of the most important gaps in the skills they see in new graduates:

There is a lack of creativity. Even with the problems that they usually face, they don't have the creativity even to find solutions for. So usually they rely on their, you know, their seniors to find a solution, which is maybe part of the leadership qualities as well. I mean they lack the leadership qualities, being creative and finding solutions for the problems. (FG2)

The problem solving is, you know, it's missing, so the ability to look at a situation and say, 'ok, this is not going the way it's expected. What's a different solution here? How can I solve this problem? What's a different way that I can approach this?' and really, you know, thinking it through instead of, you know, just having somebody tell them that immediate response or you know, just because you really have to be flexible and not, you know, expect that instant gratification. Not being able to just think on your feet and have that problem solving, that critical thinking skills, it really does hamper. (FG6)

We can see a common and interesting theme emerging in these two quotes, and that is that this perceived lack of critical thinking and problem solving abilities is linked to broader

employability skills and personal attributes like resilience (mentioned as important by 60% of survey respondents and as good or excellent in graduates by only 10% of respondents), the ability to persevere and keep going when work is challenging and the ability to take initiative. In free text responses to survey question 9, 20 survey respondents talked about flexibility, adaptability, and crucially, the need for graduates to show willingness and the ability to learn continuously. Focus group participants commented on the negative side of this lack, with more than one participant commenting that when faced with a difficult problem, new graduates tend to rely on their seniors to solve the problem for them. For some, this was felt to be related to how skills were taught in universities – we will return to that question in a later section. One participant felt that cultural issues were also at play here:

First would be of course critical thinking, especially in Saudi Arabia, I think students tend to conform. probably cultural, you know, aspects. They need someone - sometimes, you know, as a teacher, students want me to tell them what to think instead of how to think. I've seen some efforts, you know, in their school years, I think now they get to study critical thinking, but still they are lectured about critical thinking, although critical thinking can be integrated into other subjects instead of being a subject on its own. (FG4)

### **Personal, learning and thinking skills: summary of findings**

In summary, all three data gathering methods found that critical thinking, problem-solving, and creativity are essential but lacking skills. Flexibility, adaptability, and continuous learning were also highlighted as important. In this, the data gathered for our study shows similarities to trends that are noted in the international literature on global skills gaps (WEF, 2018, ix)<sup>4</sup>

### **Focus group findings: IT user, data analytic and industry-specific digital skills**

Data analysis was a gap particularly mentioned in one focus group. This does not necessarily reflect the level of concern with such skills, as the focus group discussion was not designed to focus on technical skills. Nevertheless, one respondent provided a vivid picture of the difficulties his organisation faces when only one employee has high level data analysis skills:

Everyone is knowledgeable about the skill but not to the level where the financial analysis happens, the ratios have happened, you know the complicated big data analytics happen. So I have to use this guy. It's not anymore only my analyst doing this

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<sup>4</sup> 'human' skills such as creativity, originality and initiative, critical thinking, persuasion and negotiation will likewise retain or increase their value, as will attention to detail, resilience, flexibility and complex problem-solving.

job. It is. Everyone has to have this skill, even if he's a junior sales job. (FG1)

It is important to reiterate here that digital literacy and adaptability with digital tools and software was the third most important set of skills identified by survey respondents, identified by 71% as essential to their organisation, with just under 30% of respondents identifying these skills as lacking in graduates. Digital literacy skills were also mentioned in free text responses to survey question 9, with 19 respondents mentioning skills in using software, data analytics or in using AI.

The literature review for this study lists technical skills needed for established and growing sectors identified as priority economic sectors in GCC economies. Whilst some of these skills are 'technical' in the broader sense of 'industry-specific' or 'technological', many GCC sectors have identified an increase in the availability of digital skills as important for economic growth. The ILO reports a 'lack of comprehensive digital skills' (ILO, 2024, p.43). The literature review identifies a need for enhanced digital skills across a range of industries and sectors, including Healthcare (Alyani, 2023), financial services, and retail (Rao et al, 2021).

### **IT user, data analytic and industry-specific digital skills: summary of findings**

To sum up, the literature review identified a lack of comprehensive digital skills in GCC economies, highlighting the need for enhanced digital skills across various industries. Survey respondents emphasized digital literacy and adaptability. Digital skills were also highlighted in one focus group with data analysis skills specifically mentioned as a gap.

### **Current skills needs: overall findings**

The literature review identified employability and transferable skills as essential for all workplaces, and the importance of these skills was confirmed by survey responses and focus groups.

- Focus groups emphasized the importance of work ethic and time management and noted a lack of motivation and drive in graduates, describing them as lacking passion and a sense of purpose.
- Survey respondents identified dependability, time management, and attention to detail as essential skills, but less than half felt graduates had these skills.
- Understanding other cultures was highlighted as a necessary employability skill, particularly in the Middle East, with graduates' lack of understanding of other cultures affecting their communication in multicultural workplaces.
- Communication skills, both oral and written, were noted as lacking in graduates by both

survey respondents and focus group participants.

- Personal, learning, and thinking skills, such as critical thinking, problem-solving, and creativity, were identified as essential but often missing in graduates.
- Digital literacy and adaptability were also seen as essential, with significant gaps in skills like data analysis highlighted.

## Future skills' needs

The literature review highlights widespread international speculation on the transformative potential of AI and GenAI, which are anticipated to significantly enhance productivity, efficiency, and quality. Mishraf et al (2023a) found that AI is essential for driving the transformation of skills and employment in the modern economy, and crucially, other studies conclude that whilst computers may replace people in repetitive activities and retrieval, people will complement computers in areas of creative, problem-solving and leadership, for example – precisely the skills employers in the region say graduates are lacking (ILO et al, 2023).

Given the rapid advancements in technology, digital fields, and AI, the literature review underscores the necessity of investigating AI's impact through primary research., with the aim of understanding local and sectoral interpretations of concerns and impacts in GCC countries. Accordingly, Section 3 of the survey comprised four questions designed to explore these issues. Future skills needs were not explored in the focus group discussions.

### Future skills needs: findings from the online survey

Item 10 of the online survey required the respondents to agree or disagree with the point that some skills will become less important, and other skills more important, considering the impact of innovative technologies such as AI. The responses provided the following results.

With innovative technologies, some skills will become less important and others more important		345	
Yes	270	78%	
No	75	22%	

Table 5: From Survey - Rating of the impact of innovative technology on skills

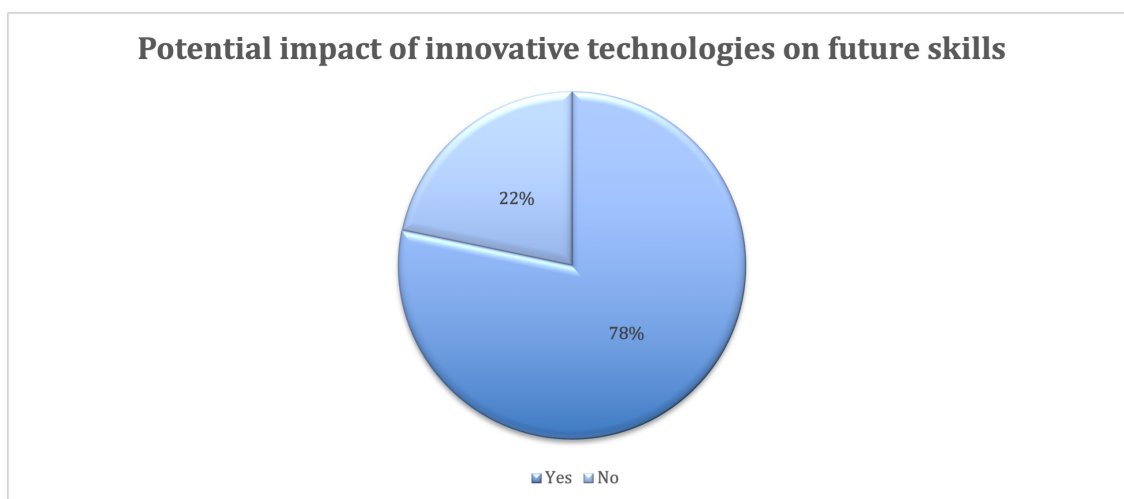


Figure 5: From Survey - Rating of the impact of innovative technology on skills

More than three-quarters of the respondents (78%) agreed that with the potential impact of innovative technologies, including AI, some skills will become less important while others will become more important. This alludes to awareness on the part of the employers about the transformative power of newly emerging technologies when it comes to the automation of mundane and repetitive tasks. It also demonstrates their cognizance of the anticipated shift in skills that can be brought about by advancements in the continuously evolving technological landscape, which may require an overall re-evaluation of human skills development on their part.

Following up on this item, Item 10.1 focused mainly on the skills that the respondents agreed will become more important with the potential impact of innovative technologies such as AI. The responses collected lead to the following results.

Skills that will become more important (Selected Choice)	Count	%
English language and business writing and communication skills	106	40%
Basic and applied numeracy	35	13%
Digital literacy and adaptability with digital tools and software	194	73%
Interpersonal and teamwork skills	134	50%
Dependability, time management and attention to details	111	42%
Critical thinking, problem-solving and creativity	170	64%
Work-related acumen and good decision-making	121	45%
Resilience	100	37%
Ethical conduct	113	42%
Other	9	3%

Table 6: From Survey - Key Skills Anticipated to Gain Importance Due to AI and Technological Innovations

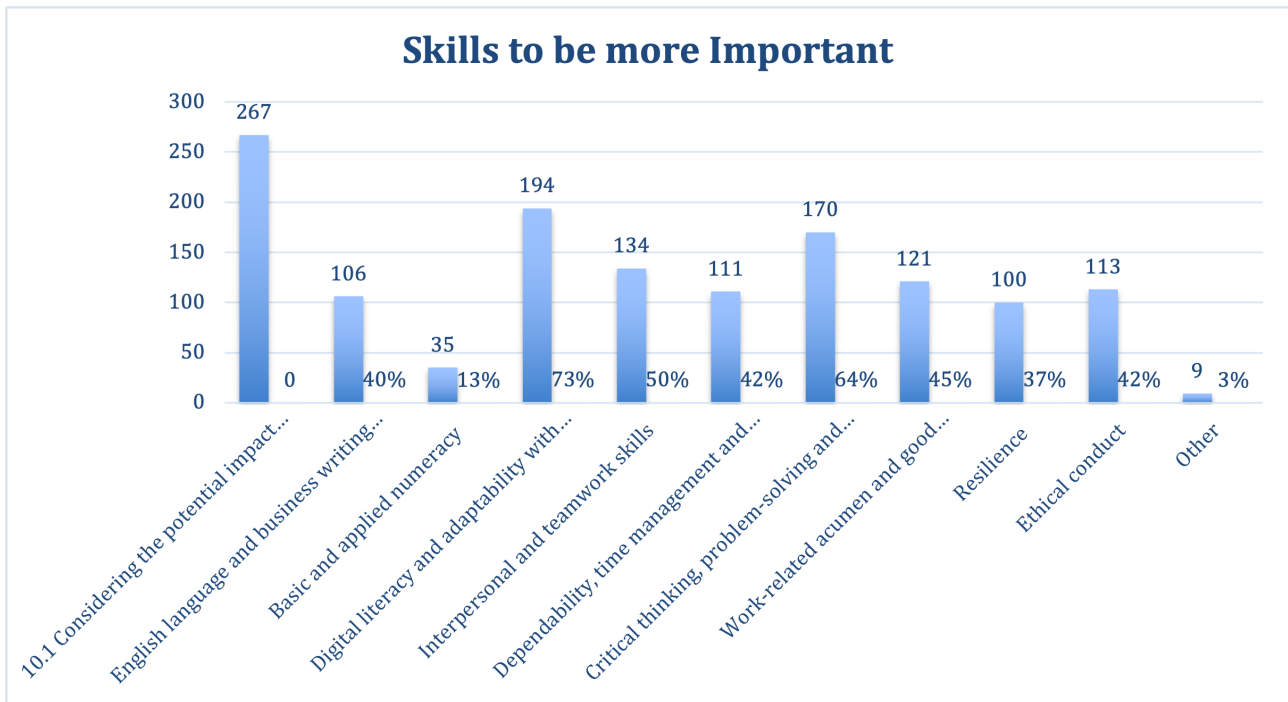


Figure 6: From Survey - Key Skills Anticipated to Gain Importance Due to AI and Technological Innovations.

The data resulting from this item indicates that according to most of the respondents (73%), digital literacy and adaptability with digital tools and software are the skills that will become most important with the potential impact of emerging technologies. This is followed with problem-solving, critical thinking, and creativity, coming at (64%), and then interpersonal relationships and teamwork, at (50%). This confirms the findings of the 2023 ILO study noted in the literature review, that many employers think that new technologies will mean that people skills will become more important. English language and business writing and communication skills were also considered as ones that will continue to be of value by (40%) of the respondents, which highlights the pressing need for ensuring effective communicative skills development now and in the future. In this, responses reflect findings of other studies in the region, such as the 2020 study of future skills' needs in KSA, which found that some of the most frequently cited future skills included the soft skills of the ability to apply social, creative and critical intelligence to problems, and communication skills such as presentation, English Language, Negotiating Techniques and Reporting (MISK Academy, 2020).

Similarly, other skills on the list were considerably rated by the employers as ones that will most likely increase in importance with the impact of innovative technologies. These include reliability, time management, attention to detail, and ethics (with a 42% rating), work-related acumen and good decision-making (with a 45% rating), and resilience (with a 37% rating). However, like in

Item 7 above, basic and applied numeracy again received a comparatively lower rating than the other skills on the list (with only a 13% rating); nevertheless, this does not mean that this skill will cease to be important. Employers just view it as not becoming as essentially needed with the advancements in technologies as the other skills.

Item 10.2 served as a follow-up question to Items 10 and 10.1. It requested from the respondents to list any additional skills, other than those mentioned in the list of Item 10.1, that they believe will become more important with the impact of innovative technologies. The responses reflected a wide range of skills, among them technical skills related to data analysis and artificial intelligence and its algorithms and focused in specific on the analysis of big data. Technical skills in programming and coding were also referred to, in addition to troubleshooting competencies and skills in data protection and cybersecurity. In relation to this, adaptability and learning agility were also pointed out as aspects that will become more important; this is due to the need for continuously acquiring new skills, to keep up with the rapid pace of technological advancements.

From another side, emotional intelligence, empathy, cultural understanding, interpersonal and communication skills, and collaborative teamwork were all highlighted as essential in the future for ensuring positive work dynamics. This is in addition to attributes that are specifically relevant to professionalism and work ethics, such as accountability, responsibility, honesty, transparency, and integrity.

Analytic and research skills were also stressed on by some participants, who highlighted that the future will need graduates who are strong in researching, analyzing and synthesizing complex information and also in interpreting and evaluating data effectively, which will help keep them informed about the latest developments in their respective fields.

Finally, innovative and strategic thinking were also mentioned as becoming more important, with the need to come up with original ideas and to develop long-term plans for achieving organizational goals and objectives.

Again, as a follow up to the previous items, Item 10.3 focused mainly on the skills that the respondents agreed will become less important with the potential impact of innovative technologies such as AI. According to the responses, these include the following results.

Skills that will become less important with innovative technologies	Count	%
English language and business writing and communication skills	106	43%
Basic and applied numeracy	162	65%
Digital literacy and adaptability with digital tools and software	41	16%
Interpersonal and teamwork skills	45	18%
Dependability, time management and attention to details	58	23%
Critical thinking, problem-solving and creativity	38	15%
Work-related acumen and good decision-making	38	15%
Resilience	28	11%
Ethical conduct	26	10%
Other	14	6%

Table 7: From Survey - Skills deemed less important due to potential impacts of innovative technologies like AI

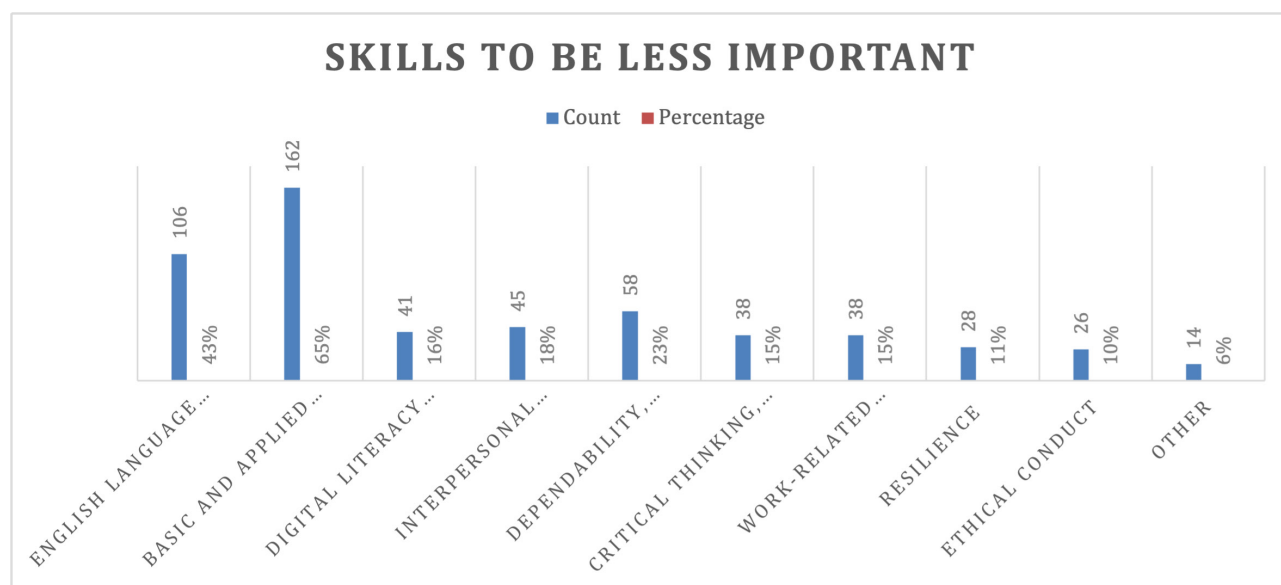


Figure 7: From Survey - Skills deemed less important due to potential impacts of innovative technologies like AI.

The data resulting from this item indicates that according to most of the respondents (65%), basic and applied numeracy are the skills that will become less important with the potential impact of emerging technologies. This is followed with English language and business writing and communication skills, coming at (43%), and then dependability, time management and attention

to details, at (23%). Interpersonal and teamwork skills were also considered as ones that will become of less value by (18%) of the respondents, which highlights a need for an in-depth analysis of the reasons why employers believe that all these skills will no longer be as important in the future as they are now.

Other skills on the list were also rated by some of the employers as ones that will most likely decrease in importance with the impact of innovative technologies. Surprisingly, among them are the digital literacy and adaptability with digital tools and software skills, which were selected as a choice from the list by (16%) of the respondents. Other skills that were selected by an equal percentage of respondents are critical thinking, problem-solving, and creativity (15%) and work-related acumen and good decision-making (15%). Resilience, ethical conduct, and other skills not on the list were selected by comparatively lower percentages of respondents, with (11%), (10%), and (6%), respectively.

What these results communicate is the message that, according to employers, technological advancements will definitely result in a skills shift, through which some traditional skills will become of less value, while others will continue to be important if not increase in significance.

### **Future skills needs: overall findings**

- The literature review noted international media speculation about AI and GenAI improving productivity, efficiency, and quality. While computers may replace people in repetitive tasks, people will complement computers in creative, problem-solving, and leadership areas, which are skills employers find lacking in graduates.
- The primary research aimed to understand local and sectoral concerns and impacts of AI in GCC countries.
- 78% of survey respondents believed that new technologies, including AI, will change the nature of skills needed in the workplace, with digital literacy and adaptability with digital tools and software identified as the skill that would become most important. Respondents also mentioned critical thinking, problem-solving, and creativity, as well as teamwork, as becoming more important.
- The skills that respondents felt would become less important were basic and applied numeracy and the ability to communicate in writing.

## Theme 2: Education and Training Provision – findings

The literature review for this study outlines the challenges facing the education and training sector in GCC countries. Over the past decade, the education and training landscape in the GCC countries has greatly evolved, driven by economic and social changes. Economic visions and national agendas have spurred substantial investments in education, with a focus on quality education, human capability development, and preparing citizens for future labour markets. Technological advancements have been introduced, or planned to be introduced bringing significant implications for employment and the education sector that prepares people for employment.

The literature review found that many employers find higher education curricula to be disconnected from industry requirements and job market demands, and despite national and local programmes to address such issues, lack of confidence in local education persists among employers. For example, the ILO (2024) reported that there are serious concerns over the quality and relevance of education skills development programmes in the region' (p.10). A close examination of the GCC visions (Abu Dhabi Economic Vision 2030 and Dubai Plan 2021; Saudi Vision 2030; Kuwait's Vision 2035; Economic Vision 2030 for Bahrain; Oman Vision 2040; and Qatar National Vision 2030) (summarised in Mosly, 2022) shows that they all aim at improving the quality of education and developing a strong educational base/system. Review of relevant literature suggests that employers in GCC countries support and recognise the aims of the country economic visions, and believe that progress has been made in GCC higher education systems. Some employers acknowledge that that they have seen improvements in academic standards (International Labour Organization, 2021; Ernst & Young, 2015). At the same time, however, there are many employers who find the curricula being taught in HEIs disconnected from industry requirements and the demands of the job market (Ernest& Young, 2015). The logical corollary of this is that employers in GCC countries do not believe that higher education is currently preparing graduates to play an effective role in helping their country achieve its economic vision.

Finding such strong concerns documented in the literature, both phases of primary research in this study included research questions about employers' perceptions of higher education and its role in preparing graduates for work, versus their own role in providing training for their employees. The online survey in particular asked a number of questions of respondents that sought their views on the breadth and quality of higher education provision.

## The role of universities

### The role of universities: findings from the online survey

Section D of the online survey asked respondents about the role of universities and their perceptions of how well this role was being fulfilled.

Item 11 required from the respondents to give their opinion about whether the higher education systems in their countries are preparing graduates well for the job market.

In your view, does the higher education system in your country prepare graduates well for the job market?	Count	%
Yes	71	22%
No	75	23%
Partly	175	55%

Table 8: From Survey - Higher Education Systems' Effectiveness in Preparing Graduates for the Job Market

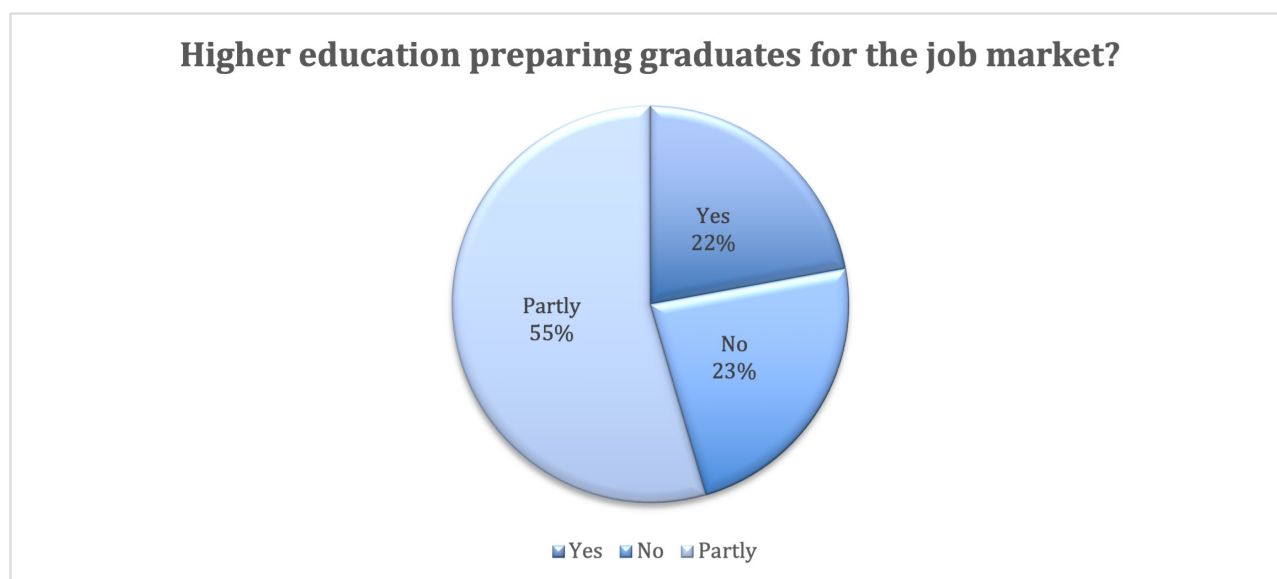


Figure 8: From Survey - Higher Education Systems' Effectiveness in Preparing Graduates for the Job Market.

The results for this item revealed that more than half of the respondents (55%) believe that the higher education system only partly prepares graduates well for the job market. The remaining respondents are split almost equally between those who believe that the graduates are well prepared (22%) and those who view them as not (23%). This perhaps represents a more positive picture than that found by 2015 research that found that only 29% of employers across the GCC felt that the education system in their country prepared students with the right technical skills for

the job (Ernst & Young, 2015). Our current survey suggests that employers' satisfaction levels with the higher education systems in the GCC are varied, representing an increasingly positive view of higher education. However, there remains a high degree of partial satisfaction, and where this has been reported, it may indicate that the employers view only some aspects of the higher education systems as effective, while at the same time identifying what they consider to be critical gaps that need to be addressed. Investigating employer views of the successes to date and continuing gaps form part of the focus group phase of this study, and are reported in detail below.

Item 11.1, serving as a follow-up item, was relevant only to the respondents who believed the higher education systems in their countries were not preparing graduates well for the job market. The item, thus, required that they indicate from a provided list what they saw to be the main areas requiring improvement in these systems. The yielded results were as follows.

The main areas in higher education systems requiring improvement. (Selected Choice)	Count	Percentage
Development of soft skills	168	70%
Improvement in career services.	89	37%
Pace of adoption of technology in universities	98	41%
Alignment of curricula to labour market needs based on regular feedback from employers	157	65%
Quality of English and other language instruction	97	40%
Availability of qualified faculty with greater industry experience	109	45%
Quality of STEM teaching (Science, Technology, Engineering, and Mathematics)	88	37%
Regular input from employers into degree programmes	101	42%
Opportunities for students to apply learning to work-based problems	163	68%
Others	10	4%

Table 9: Feedback from respondents believing their countries' higher education inadequately prepares graduates for the job market.

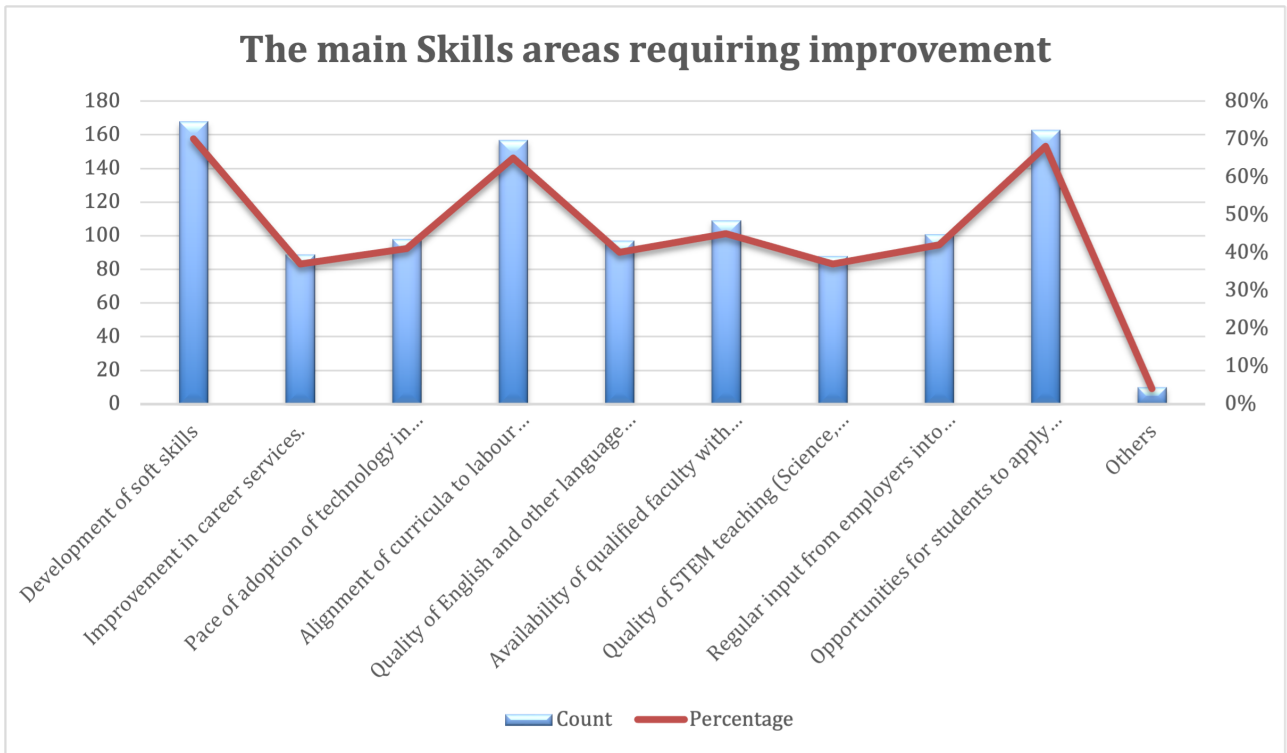


Figure 9: Feedback from respondents believing their countries' higher education inadequately prepares graduates for the job market.

The data collected for this item helps prioritize the areas of improvement in the higher education systems of the GCC countries, as perceived by employers. The development of soft skills is identified by (70%) of the respondents as the highest priority. This is followed with the second priority identified by (68%) of the respondents, which is the provision of opportunities for students to apply learning to work-based problems, and then by the third priority, alignment of curricula to labour market needs based on regular feedback from employers, as asserted by (65%) of the respondents. These three priorities underscore the importance of higher education institutions preparation of future graduates both theoretically and practically, as needed by employers, and equipping them with the professional ethics and attitudes relevant to the workplace.

On the same note, the fourth priority selected by (45%) of the respondents concerns strengthening links between industries and the teaching that takes place in higher education institutions, through the reliance in these institutions on qualified faculty members with practical industry experience that can inform their pedagogical practices. Similarly, the fifth priority selected by (42%) of the respondents focuses on establishing the same links but through the provision of regular feedback from employers in the industry on academic programs and courses.

The next two priorities were ranked almost equally with one at (41%) and the other at (40%), with the first of them focusing on the rapid integration of technology in higher education and the second emphasizing improvements in English and other language instruction. Similarly, the development of career services to guide students in the transition from university to the workforce,

in addition to the enhancement of the quality of education in STEM subjects, were both identified as priorities by the same number of respondents (37% each).

Finally, other priorities not on the list were also identified by (4%) of the respondents, although, comparatively, not at a high level as the other ones on the list. These include an emphasis on problem and project-based learning, internships and apprenticeships or work experiences directly with employers during academic study, partnerships with the private sector organizations, and a focus on STEAM (including the arts) rather than just on STEM.

Item 12 inquired about how the participants' organizations communicate their skills needs to the higher education institutions. The responses indicated the following results.

Communicating skills needs to higher education institutions (Selected Choice)	Count	%
Through curriculum advisory boards	68	22%
Participation in university events	98	32%
Direct conversations with universities	99	32%
We do not have any links with universities to give them feedback	133	43%
Other	29	9%

Table 10: From survey - Participant Responses on Skills Needs Communication to Higher Education Institutions

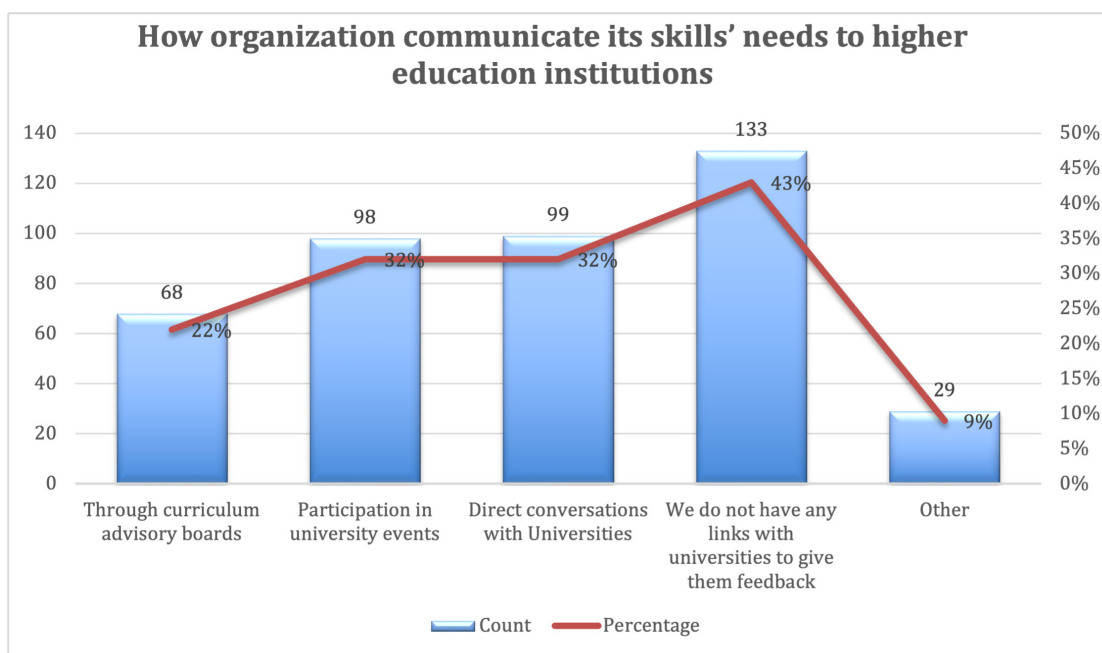


Figure 10: From the survey - Participant Responses on Skills Needs Communication to Higher Education Institutions.

When asked, through Item 12, to identify how their organizations communicate with the higher education institutions if at all, the largest percentage of respondents (43%) indicated that their organizations have no links through which they can provide the institutions with feedback. Despite this, (32%) of the respondents indicated that their organizations have direct conversations with the universities and participate in university events, while (22%) identified curriculum advisory boards as a formal mechanism for informing and influencing educational offerings.

Additionally, (9%) of respondents selected other methods of communication than those on the list. Overall, these results to Item 12 depict a possible communication gap between some industries and universities, with a need for improvement of partnerships and collaborations between them.

Items 13 and 14 invited respondents to add any further comments on the current skills of university graduates, and to suggest what actions they would recommend higher education institutions take to better align graduate skills with their organizational or industry needs. Respondents indicated that the improvement they would like to see in higher education provision is an **increased focus on practical skills**, improving students' ability to apply their theoretical knowledge in 'hands-on' situations in the workplace. This graduate skills gap was mentioned (by 32 responses to survey question 13 and 40 responses to question 14, with several providing detailed comments on the issue. Some explicitly commented that university courses are too theoretical:

The general skills of university graduates adopt the principle of memorization to take exams and have nothing to do with the work skills needed (except for specialized disciplines). University students must undergo continuing vocational training in addition to theoretical study. University teaching should be divided into 50% theoretical and 50% practical.

Practical Skills: Many graduates lack hands-on experience or the ability to apply their academic knowledge in real-world scenarios

Other responses provided suggestions on how this problem could be remedied:

- Prioritize Experiential Learning: Embed hands-on learning through case studies, simulations, and practical problem-solving activities to prepare graduates for workplace demands.
- Enhance Practical and Applied Learning: Integrate courses and curricula that focus on hands-on training and real-world projects; Expand internship and cooperative training opportunities with businesses and organizations; Establish simulation centers that replicate real-life work environments across various fields.

Identify labour market demand and ensure rationale for introducing or offering a program/qualification includes job destinations for graduates:

- Embed regular employer/industry consultation to identify knowledge, skills & competencies for programs/qualifications required in labour market
- Include employer/industry in validation of new programs/qualifications developed by higher education institutions
- Increase and enhance workplace learning/professional practical experiences in graduate programs.

These findings were confirmed during focus group discussions, as we will see in the next section of this report.

### **The role of universities: focus group findings**

#### **How can higher education reduce the skills gap and ensure greater availability of in-demand skills in the workforce?**

The themes of the need for alignment and regular communication came across strongly in our research with focus groups. All six focus groups made implicit or explicit reference to the need for higher education to **ensure that their curricula met employer needs**. One participant expressed his perceptions of current curricula in a very vivid way that is worth quoting:

So what is going on today? The guy is brilliant. You interview him. He's the best you feel. He's very smart and most of the time smarter than you. But when you give him something to do, he doesn't know anything practically. Now the issue is not only to put him in the job during his study. No, the curriculum itself has to be changed. Yeah. And when you ask him, 'What you studied? You're very brilliant, but you don't know what's going on?' He tells you, 'I studied', for example, he's studying engineering, he studied a lot of math, a lot of Arabic, a lot of English, a lot of geography. You ask, 'Why the job that you're going for is mechanical engineer?' (FG1)

The same participant felt that the gap came about because of the university teacher has a high level of theoretical knowledge, but no (recent) workplace experience:

So the key issue I'm facing today is: The PhD holder, who's standing and lecturing within the university, he has his time of knowledge - now currently what's happening in the job is completely different. I believe there has to be a partnership between the workplace and the universities and this will be through not a focus group like what we're doing, but let's say focus classrooms. Here we're talking about how engineers within, for example, petroleum companies, how these engineers will have a part to

play with the PhD holder within the university, who is lecturing ... to employees to go directly into this job. (FG1)

Another focus group participant succinctly summed up the need:

The higher education institution's role mainly should be to bridge the gap between academia and industry, especially collaborating with industry to design curricula that reflect current market needs. (FG2)

Indeed, this theme of **Higher Education institutions needing to ensure that they have closer links with industry** and the skills market, was mentioned in five out of the six focus groups. It was pointed out that such links need to ensure that graduates are prepared for 'future challenges and requirements' (FG2) as well as for current skills market needs. This was termed 'industry-oriented education'. (FG4) A concern to reduce theoretical learning and increase graduates' ability to apply learning in practical situations was also highlighted by focus group participants, with three out of the six focus groups mentioning the need for graduates to be able to apply their knowledge and theories in practical situations, developing an understanding of how concepts, tools and ideas learned theoretically might be applied in the workplace. One participant provided a particularly vivid example of feeling that compelled to recruit graduates with excellent theoretical knowledge but a lack of knowledge of how the industry operates locally. The participant expressed frustration that they are left to bear the expense of providing the practical training at needed. The comments are worth quoting at length:

So what is going on today? The guy is brilliant. You interview him. He's the best you feel. He's very smart and most of the time smarter than you. But when you give him something to do, he doesn't know anything practically. Now the issue is not only to put him in the job during his study. No, the curriculum itself has to be changed. And when you ask him what you studied, he's very brilliant, but he doesn't know what's going on. He's studying engineering. He studied a lot of maths, a lot of Arabic, a lot of English, a lot of geography.

You ask why the job that you're going for is mechanical engineer. I employ Mechanical Engineers for my construction company, for piping and electromechanical job. But when they come practically, they don't know what is going in the market. They study the theory of micro electromechanical, but practically what we use in houses, what we use in swimming pools, they are very far from. They studied the theories of Elon Musk, how he put the rocket into space, how things happened when they built a big giant factory within U.S, but they don't know what is required for our life in Kuwait. We don't have all this. What we need is - practically adding up, practically within the

curriculum.

What is required for him to do and manage and execute and plan the job we're doing? I'll give you just a simple example. In construction I hired recently three engineers. The three engineers I have, they will work on the sites and from the office. Imagine that three of them studied AutoCAD. They cannot read or draw AutoCAD. I have to take them now because they are brilliant, I cannot find alternatives. Now I'm training them: I'm putting a plan to enrol them on the company expense. So what have they been doing in the past four years in the university? (FG1)

## **Communication between employers and higher education institutions**

During focus group discussions, four out of six focus groups suggested that there should be **regular meetings between employers and higher education**, perhaps formalised as committees or advisory boards. It was suggested that these need to happen at least annually, and that it is not enough to have high level discussions: the groups need to be able to discuss matters of detail in what employers would like to see covered in higher education courses. One participant from the higher education sector gave a detailed description of how they have seen this process working:

We should have links with all the industries that are related to these colleges and have a yearly meeting. And it was really beneficial to have them all seated on one table. Everybody from the engineering backgrounds sitting on one table, all the HR people who are related to the training departments of these industries, of these companies, big industries. We had people from the automotive companies coming for the next day. We had people from the aviation market and the institutes all joining us and they actually gave us all the areas for improvement that we needed to work on. They said that what we are receiving from graduates are lacking 12345, and we are changing. Things are changing now. You need to focus more on 12345. What we did is once this was done; we took all the points that they had, and we went and had a general meeting with all the course coordinators in the meeting. All the decision makers in the meeting, so they're here and then we transferred the points that were given to us to all the teachers, and we had a thorough meeting with everybody with curriculums reviewed and revised and checked with the industry again: 'Is this what you are looking for?' (FG3)

Survey responses suggest that such links are not common. Reporting on their current means of communicating with higher education, 43% of respondents said that they did not have any links, while only 22% reported taking part in curriculum advisory boards.

A suggestion on how this situation could be improved was made by participants in three focus groups, who recommended that **government agencies such as Ministries of Education need to be involved** in ensuring that higher education curricula meet the needs of employers, either to facilitate an advisory board, or to mandate and oversee collaboration between universities and employers:

I think a third party needs to come in, which is the governing body or like the Ministry of Education. I think they play a big role in enforcing or putting legislation to have that kind of a venue/workplace open that doesn't undermine all of the university's work. They need to basically have people who set the right programmes; so, in terms of collaboration, a third entity needs to come in. I think it's a necessity to have that. (FG4)

One or two participants suggested fairly detailed models, of governments mandating the provision of academies of some sort, or of providing formal frameworks to ensure that university provision meets employer needs:

I feel like that's a model that probably would benefit in a lot of ways if we could do that kind of collaboration between government bodies that are overseeing frameworks and expectations and policies when it comes to education, and linking with the industry and saying, 'Is that framework that's being built practical? You know, is it what we really want to be seeing coming out of the universities? Is it really what we want to see coming in from the graduates? Is there a collaboration between those two, you know, to make sure that the frameworks are actually implemented in a way that's practical, relevant? And then how are we giving support to the educational institutions from a governmental perspective?' In order to make sure that those fall in line with the framework. (FG2)

Another area for improved communication and collaboration that was mentioned in three focus groups was that liaison and co-ordination of curricula needs to start before university, at school level. Of particular interest was the need to ensure that young people of school age are aware of different employment opportunities and what the workplace actually involves. These suggestions are beyond the scope of this study.

A further suggestion made by focus groups (four out of six) was that employers and higher education institutions should **collaborate to jointly design or manage student projects**. These were described as 'real-life', 'industrial-based' projects:

There's live projects that can be given and working in that way so that you are getting the theory aligned to real life practice whilst it's being learned. So, you could ask

industries to come in and set sort of real-life projects of working within that way. (FG6)

Some participants suggested that the student should spend time with the employer working on such projects, whilst other participants suggested that employers should have a role in suggesting topics for projects that students would complete at university. Such arrangements were felt to be of potential benefit to students, giving them detailed practical knowledge of an employer that may reap benefits when applying for jobs. They were also felt to have benefits for employers:

Yeah, because cases and projects that our students are tackling are real world cases currently happening, and companies are looking for solutions. So yes, we are providing free of charge solutions, let's say proposed solutions by our students to the market, but that will encourage our students to know what's the applied dimensions of what they study, to see direct implications of what they do and to get direct feedback from the market. So that full cycle that we want to put our students in. (FG1)

Whilst strongly supporting the idea of work-based projects, one focus group participant from higher education pointed out that in some areas of some countries there can be difficulties finding employers with the right technical expertise to support projects:

The challenge we face, we have limited number of industries that are for example aligned with IT. For our students, for example, we have many factories in the area, we have lots of companies in the area, but when it comes to IT to teach them IT technical skills, this is where we find a challenge. (FG2)

The final suggestion from focus groups (four out of six) for collaboration between employers and higher education institutions was that **higher education should offer professional certificates** alongside degrees:

with the professional certification, of course you would bridge the gap between industry and academia, and this is very important for what we call job specific skills. (FG4)

to have more credibility, students need to have Industry certification. (FG4)

Whilst participants in four focus groups supported this idea, in one of these focus groups there was an extensive discussion, with some participants disagreeing that it would be useful. The reasons given were that professional certificates are not available for all degree subjects, that they are not necessarily valued by recruiters, and that if too many professional certificates were achieved, their worth would be devalued (FG4). In a fifth focus group, a participant made an extensive case not for professional certificates, but for universities to collaborate with professional bodies so that students are aware of them and begin a relationship that can continue into their working life (FG6)

## **The role of universities: overall findings**

Employers in the GCC recognize progress in higher education but still find curricula disconnected from industry needs. They emphasize the necessity for universities to align programs with market demands and integrate practical, hands-on training. Regular feedback from employers and collaboration in designing curricula are crucial. Survey and focus group participants highlight the importance of bridging the gap between theoretical knowledge and practical application to ensure graduates are well-prepared for the job market. 65% of survey respondents indicated that they felt that higher education should ensure alignment of curricula to labour market needs based on regular feedback from employers, and this theme came across strongly in focus group discussions.

Findings from the primary research confirm and are confirmed by literature review findings that HEIs nowadays are expected to produce graduates with the knowledge, skills and attitudes that are needed to succeed in the workplace (Hodgman, 2018). Employers view HEIs as providers of the workers they need and expect graduates to have employability skills. Employers in the GCC recommend greater alignment between academic programs and labour market needs. Part of this entails continuous updating of academic curricula, programs, and strategies to remain up to date with the changing industry landscape (Al-Rashaidan & Al-Thwaini, 2021). This is in addition to HEIs ensuring that their program learning outcomes incorporate skills and attitudes valued by the employers (Al-Altroush and Ibrahim, 2022).

The need for alignment and for better communication between higher education and employers came across in all three data sources. The literature review found strong evidence across the GCC of employers' involvement as advisory board members of HEI academic programs (Lawrence, 2024). There is also evidence of collaboration between HEIs and employers with respect to internships and work placements (Lawrence, 2024). Despite this, however, the literature review found that in most GCC countries employers report only moderate satisfaction levels on quality and effectiveness of higher education-employer engagement (Ryan, 2023; Hassock, 2019; Jarrar, 2018).

The online survey asked employers to identify how they currently communicate with higher education, but did not ask respondents to identify ways to improve communication between themselves and higher education. Nevertheless, themes of collaboration, the need for stakeholder engagement from higher education institutions, and a wish for strategic partnerships, came through in several survey responses.

To sum up, employers in the GCC emphasize the need for stronger collaboration with higher education institutions. Survey respondents and focus group participants recommended regular meetings, advisory boards and consultation to ensure higher education meets industry needs. Additionally, combining professional certificates with degrees and involving employers in designing student projects were suggested to bridge the gap between theoretical knowledge and practical application.

To sum up, then, employers in the GCC emphasize the importance of aligning higher education with industry needs through collaboration, and suggest that:

- Higher education institutions should integrate practical, hands-on training with theoretical knowledge.
- Regular feedback and collaboration with employers are crucial for curriculum design.
- Employers recommend continuous updating of academic programs to match market demands.
- There is a need for greater communication and strategic partnerships between higher education and employers.
- Combining professional certificates with degrees can bridge the gap between theory and practice.

## **Employer perceptions of their own role in training their employees**

To mitigate these educational-industrial mismatches, employers who took part in this study reported that they have adopted a number of strategies. These are detailed in the following pages.

The literature review found a few, consistent data sources that suggested that the view of employers across the GCC on their role in training their employees is consistent with findings of international research that employers view their main responsibility as that of increasing student internship opportunities and providing employees with professional on-the-job learning (Cheng et al., 2022). Employers consider themselves responsible for the instilling of specialised technical skills through mentoring, training, and development initiatives, including internships and on-the-job opportunities. These findings were considered to need discussion and the possibility of reflective follow-up and consequently were explored through focus group discussions rather than survey questions.

## The employer role in training – focus group findings

In the focus group phase of this study, all six focus groups, and indeed most participants within focus groups, mentioned providing opportunities for internships as the main responsibility of employers in terms of contributing to ensuring that graduates develop the right skills to be work-ready when they graduate. These were felt to be beneficial for both employers and students: ‘internship opportunities, actually they are good for both’ (FG1). Internships were felt to be the best way to bridge the gap between education and employment, and to help prepare new graduates to develop transferable skills, learn about working life, and get to know particular sectors or employers. Some participants were able to describe how such internships worked in their organisation:

Actually, one of the initiatives our authority has started to implement is having interns working at the authority for six months, three months. During their internship, we would offer them a soft skills training programme that is from basic image writing skills to problem solving, proper communication, you know, clarification on the roles and responsibilities – that’s to help them understand the role more and that training is normally done by their line manager or someone from the division they’re allocated at. (FG2)

Other focus group participants expressed a view of how they thought internships should be:

In addition what is required is an internship for six months or more during the programme in order to scale up the fresh grads, in order to give them the right soft skills, and this programme should not include only theoretical training or attending trainings. It should include on the job training and should involve multiple processes and activities in the organization. (FG4)

To summarise findings from the literature review, survey responses and focus groups, employers in the GCC believe their main responsibility is to provide students with practical experience and professional development opportunities. They emphasize the importance of internships and on-the-job training to bridge the gap between education and employment. Internships are seen as beneficial for both employers and students, helping graduates develop essential skills and understand the workplace environment.

## The types of training needed

A focus group research methodology provides opportunities to engage in detail with research participants on issues that are complex and multi-faceted. Accordingly, then, the focus group phase of this study included investigating the details of employer views on the type of training needed to address graduate skills' gaps. In effect, focus group participants were asked to go beyond dichotomous consideration of higher education and employer roles. Researchers introduced an open question on the types of training that might be required.

In response, focus group participants highlighted the implications and impacts of employer-provided training versus training provided by external training providers. Across the six focus groups, there was universal agreement that both internal and external training should be used. Internal training, described using terms like 'on the job', and 'hands-on', was thought to be useful for helping new employees to gain practical knowledge and get to know the company. It was also noted that internal training may be used because of the expense of providing external training. Whilst this internal training can be informal, perhaps carried out by the worker's line manager or someone in their department (FG2), it may also consist of a formal, planned training programme lasting between one to five years (FG3). One participant pointed out that any on-the-job training needs structure and clear aims:

The success of the internship and the on-job training is highly dependent on how much focus the organisations are putting, and efforts are putting, so it's not just some programme that we set and then we send people to an organization, and our job is finished there. We need to actually follow up. We need to have very clear objectives (FG4)

Another participant pointed out that both internal and external training are useful:

The newcomers, inside training is better for them, so that they adapt to the philosophy of the company, the latest trends, and so forth. However, what would really [work?] is if those who are newly hired are given extra funding to go to events outside the organisation like conferences and exhibitions, short courses, and the like, so that they get exposed to new trends, ideas, etc. In general, really both are needed. A mix of both on-the-job and external training is the best option. (FG5)

All six focus groups also mentioned that external, or outsourced, training, is useful in some contexts. For example, one participant noted that internal training could result in a very heavy load for senior staff, and outsourcing can reduce the load on the company:

So I think if there is an approach to outsource this it will be helpful, especially if there is a good memorandum of understanding between the employer and training company, that is very well- aligned with the industry that they are working in. So, for example, a training company that is very, very good in terms of training and engineering and oil refineries and this will help the company to relieve the pressure because this is a very big pressure on the organisation. Name it: superintendents, managers, HR departments, CEOs, everybody will be engaged and busy with the trainees, so if it is outsourced, it would be much better. (FG3)

Another participant pointed out that outsourcing is necessary in small companies who do not have the resources to provide training themselves:

if we go to smaller organisations, then they normally cannot support their training by themselves, and they outsource it. (FG4)

Overall, all focus groups felt that both internal and external training was necessary and were concerned with the practical implications for employers of providing either or both.

### **The employer role in training: summary of findings**

Employers in the GCC believe their primary role in training is providing internships and on-the-job training to bridge the gap between education and employment. They value both internal training for practical knowledge and company adaptation, and external training for exposure to new trends and reducing the burden on senior staff. A mix of both is deemed essential for addressing graduate skills gaps.

### **Education and training provision: overall findings**

The literature review and primary research have highlighted the evolving education and training landscape in GCC countries, driven by economic visions and technological advancements. As technology rapidly evolves, it reshapes industry demands at a pace that current educational curricula struggle to meet, highlighting a critical area for academic reform. Employers in the region emphasize the need for higher education institutions to align curricula with market demands and integrate practical, hands-on training to bridge the gap between theoretical knowledge and practical application. Regular feedback from employers and collaboration in designing curricula are crucial for ensuring graduates are well-prepared for the job market.

Survey respondent and focus group participant suggestions for actions to address these issues included:

- Formal and regular communication between higher education and employers.
- An increased use of internships and on-the-job training to bridge the education-employment gap.
- Combining professional certificates with degrees.
- Increased availability of on-the-job training provided both internally and externally and targeted to local skills needs.

Employers in the GCC have identified several actionable recommendations to address the graduate skills gap and enhance recruitment practices. These recommendations are aimed at fostering stronger collaboration between higher education institutions and the job market, as well as equipping graduates with the necessary skills to thrive in dynamic economic environments.

### **Theme 3: Recruitment practices and challenges – findings**

“The ambitious economic visions of GCC countries necessitate a skilled workforce; however, our literature review reveals a persistent mismatch between current educational outputs and industry needs. (ILO et al, 2023; Shediak and Sammam, 2010). This mismatch between educational output and industry needs is not merely an academic concern but a direct impediment to achieving the GCC’s economic diversification goals. The literature review found that this problem is exacerbated by the desired and necessary pace of change to meet the requirements of GCC countries’ visions and the general impact of technology on operations and innovation worldwide. International research notes that it is particularly important for organisations to be innovative and remain competitive if they wish to compete in global markets (PwC 2016). For example, all six GCC countries envision exponential growth in tourism, with KSA alone looking to attract 150 million visitors by 2030 and the UAE a further forty million, with around half a million hotel rooms to cater to this (Roland Berger, 2024). Such ambitions will require building, infrastructure, food supply, hospitality and catering, and transportation to service.

In the face of such fast-paced change, with a mismatch between education and industry needs, the literature review identified several strategies that are being used by employers across the GCC to address recruitment challenges. Overall, though, the literature review found that employers in GCC countries lack the reliable supply of skilled local graduates and workers that they would need in order to allow them to plan and implement business growth and innovation.

Both of the primary research phases of this study sought to gather more data on the nature of the challenges that employers face, how they currently respond to those challenges, and what suggestions employers might have (for higher education, policymakers and other stakeholders) that would help them to address these key national economic challenges.

## Recruitment practices and challenges: findings from the online survey

To address the highlighted skills gaps, employers have increasingly turned to several strategic measures. To begin to explore these measures, the survey began by gathering some contextual information from respondents.

Item 15 required from the participants to identify the top five fields of study or majors from which their organizations recruit. This yielded a wide range of responses, which can be grouped into separate categories including: *business management* (with sub-disciplines such as business, management, marketing, sales, accounting, finance, human resources); *engineering and technology* (with sub-disciplines such as the different engineering branches, e.g., civil, electrical, mechanical, computer, etc.; manufacturing, construction, in addition to software development, cybersecurity, and data analysis); *education and training* (e.g., general education, adult education, special education, educational leadership, educational consulting, training); *healthcare and medical sciences* (e.g., medicine, nursing, medical lab technology, pharmacy); *social sciences and humanities* (e.g., social work, sociology, psychology, counseling, mental health support, social services, public relations, communication media, language translation); and *natural sciences* (e.g., physics, chemistry, mathematics, biology, and environmental science).

Item 16 focused on the extent of ease/difficulty for employers to recruit suitable graduates. The participants were, thus, required to rate this extent on a scale of 1 to 5 (where 1 is very easy and 5 is very difficult), which yielded the following results.

Ease of recruiting suitable graduates? (where 1 is very easy and 5 is very difficult)	Count	Percentage
1	21	7%
2	52	17%
3	135	45%
4	65	22%
5	29	10%

Table 11: From Survey - The extent of ease/difficulty for employers to recruit suitable graduates

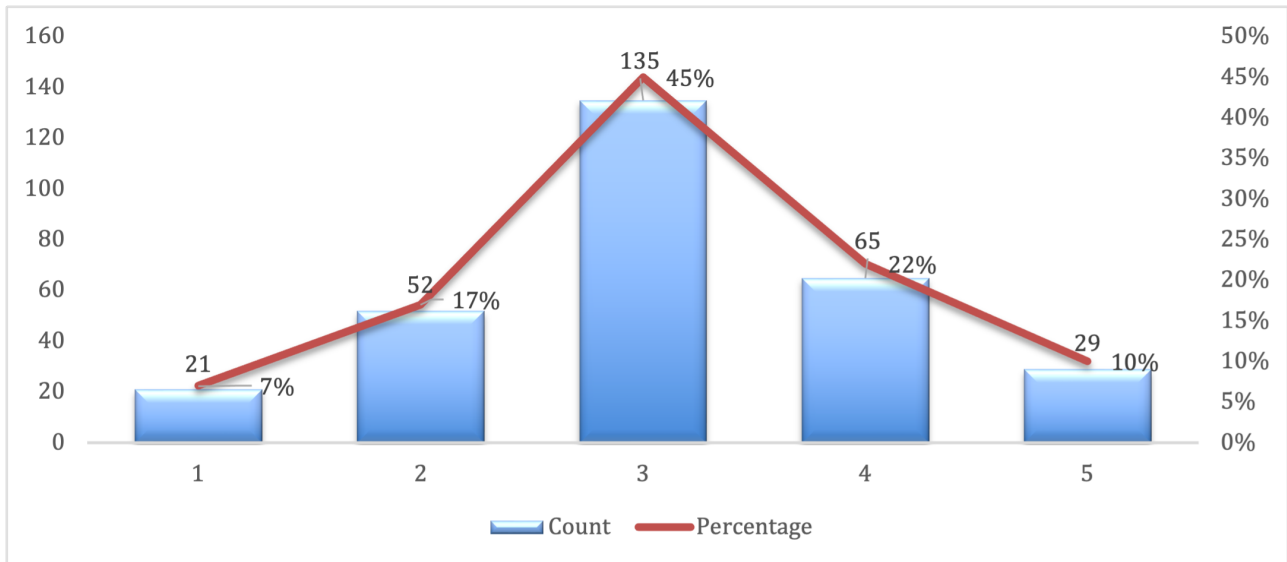


Figure 11: From Survey - The extent of ease/difficulty for employers to recruit suitable graduates.

The majority of respondents (45%) finds it somewhat difficult (i.e., moderately challenging) to recruit suitable graduates in their industries. However, a considerable percentage (22%) find it for sure difficult, and (10%) find it very difficult. This means that collectively there are significant challenges associated with finding the suitable recruits. On the other end, (17%) of respondents indicated that successful recruitment is easy and (7%) indicated that it is very easy. These results depict that more employers find recruiting suitable graduates difficult than those who find it easy.

In a branched follow-up question, those who had responded with 1 or 2 were asked why they had given this rating. The top reason given was a perception of a graduate skills gap. Respondents reiterated the feedback provided elsewhere that they find that graduates often lack the practical skills and experience that is needed in the workplace. Respondents also took the opportunity to mention again their perception that universities do not align their curriculum with the skills needed in industry, leading to graduates being theoretically knowledgeable but practically unprepared. Respondents also mentioned the overall quality of graduates, with some not meeting their standards. This necessitates additional training and preparation to make them job-ready, which can be time-consuming and costly for employers. A particular gap in employability and transferable skills was noted, including communication skills and work ethic. It was also noted that the competition for attracting top talents is fierce, especially in markets where salary expectations are high. Graduates often have high salary demands that do not correspond with their experience levels.

With respect to Item 16.1, which serves as a follow-up to Item 16, the employers were required to identify how their organizations deal with challenges in recruiting suitably qualified graduates. The results obtained were as follows.

Dealing with challenges in recruiting suitably qualified graduates? (Selected Choice)	%
Don't recruit/endure a resource shortfall	68
Deal with skills gaps through induction and on-the-job training	32
Implement schemes (internships, apprenticeships) to attract top graduates.	28
Partner with external training providers to develop required skills	37
Expand recruitment efforts to a wider talent pool (including international) Candidates	33
Use recruitment agencies	25
Invest in continuous professional development (CPD)	7
Others	1

Table 12: from the Survey – How organizations deal with challenges in recruiting suitably qualified graduates.



Figure 12: from the Survey – How organizations deal with challenges in recruiting suitably qualified graduates.

The data collected for this item indicated that most employers (68%), when facing challenges with recruiting suitable graduates, choose not to recruit and instead to endure a resource shortfall rather than to hire unqualified graduates. While a considerable number of them (37%) partner with external training providers to develop the required skills in newly hired graduates, and others (33%) react by expanding their recruitment efforts to a wider talent pool, including international candidates. There are also (25%) who opt for relying on recruitment agencies to help them find the candidates they need. All these approaches indicate that industries are willing to go beyond local and/or in-house solutions to find the skills they require.

Another approach with a considerable rating by the employers (32%) involves dealing with skills gaps through induction and on-the-job-training. Internships and apprenticeships are also rated considerably by (28%) of the respondents, with a much lower rating (7%) given to investing in continuous professional development (CPD) of employees and a minimal rating received for other approaches not available in the list of options.

## Recruitment practices and challenges: focus group findings

### Challenges recruiting suitable graduates

The findings from the literature review and survey responses were repeated in focus group discussions. Some participants (across three focus groups) did note that they found it **difficult to recruit suitably qualified graduates**. One participant noted that some disciplines are not available in some countries (estate agency in Bahrain was given as an example – FG1), and that policy decisions on degrees to offer don't always match current market needs. Reiterating an issue noted in the literature review, another participant noted that experience is often taken as a proxy for skill in defining job requirements, making it difficult to employ graduates, including on government contracts (FG6). Other participants echoed the survey findings reported above, noting that graduate expectations could prove a barrier to recruitment, with graduates having unrealistic expectations of salary, working hours, and the nature of the work involved (FG2).

For all six of the focus groups, though, the main impact on employers was identified as the **need to provide training for fresh graduates**, which can incur costs for the employer, and take up time that should be spent more productively. We have seen when discussing employers' views on the over-theoretical nature of higher education, that they can be left feeling that they need to provide

training that provides graduates with more practical and local knowledge of how their industry works. Some participants described actions that they felt they had to take in order to address skills gaps. For example, one participant described actions he had taken (for all employees, not just graduates):

So what we started 3 weeks ago at our weekly meeting which is happening every Thursday, that every single account manager has to stand and to present what he did during the week. Why I am doing this for people who've been in the business for 12 years, 15 years? Simple reason because they don't have skills of standing and presenting. So, this is a mandatory for all my account managers and sales team which is now around 12, standing up and presenting every week. This is wasting my management meeting time every Thursday, but I'm doing that because the company needs it. (FG1)

Providing training takes time and incurs costs. For companies working on a project basis, cost issues are exacerbated because training time cannot be billed as part of a contract (FG6). A lack of relevant skills was also reported to impact on the quality of work that new graduates produce (FG2). Training graduates can be made more difficult if the graduates recruited are switching to a discipline which is not the same as the one that they studied at university:

But it's very hard that you find the right people with the same required skills. So, I have to train them. I have to take from management or from engineering background. And then again you feel that gap because he's graduated as an engineer not to do the property management itself. But although he has experience which will help him, he feels like it's not really what he studied or what he had spent his four years of life. So that's what's making it very hard. And sometimes we do start with people like very fresh and we train them for a long time and then they just feel that this is not their field, or they are not really fitted, so that's another case which we don't find usually in graduates yet. (FG1)

This participant also alludes to another problem mentioned by others, and that is that employers can face a **high turnover** of new graduates, who may enter a sector with **unrealistic expectations** and leave relatively quickly. Participants noted that this can also happen when graduates have completed a relevant degree:

I agree with the unrealistic expectations. I also found out that even when you do meet their expectation, whether it's not only salary, sometimes it's about working hours or you know, sometimes for events after working hours, but even when you, you

know, reach an agreement, there is still that high turnover ratio. So many of the fresh graduates would only spend a year with the authority. When you've invested in them, you know, invested in training opportunities and upgrade, you know, up skilling them and then yes, you do wish them the best of luck in their career, but also it impacts on your turnover issue as a, you know, employer. (FG2)

In summary, then, employers in GCC countries face challenges recruiting suitably qualified graduates due to skills mismatches and skills gaps, and high expectations from graduates despite their lack of practical experience. Survey responses and focus groups highlight that the biggest impact on employers is the need to invest time and resources in training graduates, which can incur costs and affect productivity. Employers also reported facing high turnover rates among new graduates, further complicating the recruitment process.

### **Barriers to accessing training provision**

The literature review found limited information on the influence of skills on the location of a business, and as a sensitive issue requiring nuanced exploration, the online survey did not address the question of barriers to accessing training provision. Focus group participants were given an opportunity to discuss this issue, but across the six focus groups, participants tended not to take that opportunity and there was not much explicit discussion of barriers to accessing training. For focus group participants, the main issue was the nature of the training itself rather than any barriers to accessing it.

One issue that recurred was the perception that although there is training available, and this has been improving in recent years, the training that can be accessed is not necessarily matched to the way the industry works locally, or **not matched to local skills needs**, so that the training that is available is not necessarily what the employer is seeking for their trainees. One participant summed up the issue eloquently:

From my experience we don't have a problem accessing training but accessing the training that they really need is the problem. Now they don't know, they don't have a system where they can identify what their training needs are, they're just told that the organisation and authorities support them with any number of training programmes. But are these really what they need? So you know first, I think, work with the vocational institutions to identify where the skills gaps are, and then providing micro credentials

or short programmes, not just in the technical part, because there's a lot of focus on STEM subjects and on students entering into technological or technical backgrounds. But the market is saturated. (FG3)

In two focus groups, participants pointed to **geographical barriers**, that training is not available in the country, or only in major cities. Distances and difficulties of travel were mentioned as affecting some countries. This may exacerbate some of the issues identified above, as online courses may not reflect sectoral practices in the country.

In terms of discussion of barriers to accessing training, it is also important to note that in three focus groups there were positive comments about improvements in training provision, quality and accessibility of training provision, and training developed following national skills gap analysis.

To sum up these discussions, focus group participants indicated that while training is generally accessible, it often does not align with local industry needs, making it less effective for employers. Geographical barriers also exist, with training often unavailable in certain countries or limited to major cities. However, some participants noted recent improvements in training quality and accessibility.

### **Recruitment practices and challenges: overall findings**

The insights gained from examining recruitment practices underscore the urgent need for educational reforms that are closely aligned with the evolving industry requirements and GCC economic objectives. The literature review identified that employers are using several strategies to try to address the challenges of finding suitably qualified graduates. These strategies include recruiting more young people. Employers proactively recruit those aged 16-24 via internships and apprenticeships to build the talent pipeline and bring in new thinking on the latest technologies. It is also cost efficient to recruit in this way (CIPD, 2016).

Other approaches to addressing these issues include increased employer collaboration with education institutions to ensure that they are fulfilling future employment needs; better compensation packages and appealing work environments to compete with the more generous offer and ways of working found in the public sector; the provision of in-house training programmes, to ensure that employees have the skills demanded; the use of recruitment agencies to pre-screen candidates, ensuring where possible that candidates the skills an aptitudes to fill the

role; and leveraging expatriate labour to fill skills gaps where local talent is not available (Bocanet and Grassa, 2023). Sometimes, national strategies and policies can help to address recruitment challenges. For example, the UAE's focus on AI and technology in its nationalisation policies, such as the "Golden Visa" for skilled professionals, demonstrates how countries can attract and retain talent to drive innovation and economic growth (Mishraf et al, 2023a).

The primary research of this study shows clearly that employers in the GCC face significant challenges in recruiting qualified graduates due to skills gaps. Even where skilled graduates are available, their skills are often mismatched to employer needs, especially because graduates lack practical experience. Nevertheless, these graduates have high expectations of their own employment prospects. These gaps and mismatches lead employers to invest time and resources in training, which affects productivity and incurs costs.

While training accessibility has improved, it often does not meet local industry needs, and geographical barriers still exist.

### **Suggestions of other actions that could be taken to close skills gaps and address identified issues**

The primary research for this study generated and gathered a huge body of rich data on how GCC employers perceive graduate skills and how well higher education prepares graduates for entry into the workforce. The employer community responding to the online survey and taking part in focus groups is clearly highly engaged, and indeed passionate, about graduate skills and how these could be improved. In such a research context, it is inevitable that a wide range of thoughtful and innovative suggestions for improvement will be made. Such a range cannot, by definition, be captured in summaries of main findings. In this section, we report suggestions that while made by only a small number of respondents or participants, appeared to be well thought through and may have the potential to be worth further investigation. Some of this feedback relates to wider issues concerning the educational and cultural context in which higher education and employers are operating. As such, they are technically beyond the scope of this study. We have noted such contextual issues below where the issue arose in two or more of our data sources, suggesting its potential importance.

In terms of participant comment that provided ideas that could be implemented relatively quickly, one suggestion that arose in a few survey responses and was repeated in one focus group was the establishment of research mechanisms to monitor employer skills' needs. An innovative suggestion made by a focus group participant was that this could involve something as simple as a regular search of job advertisements on online sites (FG1). In suggesting the collection of more regular and comprehensive labour market data, participants echo findings of international surveys that effective and evidence-based skills policy development requires a comprehensive approach based on accurate and up-to-date labour market information (ILO, 2024).

Other, more specific suggestions for actions that could be taken included a suggestion that employers play a role in addressing skills gaps by providing mentoring services, either while students are at university, or experienced staff mentoring new entrants to the workforce (FG2;FG5). This was mentioned in a few free text survey responses and in two focus groups, and the literature review found evidence that employers' ability to mentor and understand work-based learning requirements needs to be improved in order to ensure the success of initiatives like internships and apprenticeships (Lawrence, 2024).

Other suggestions made by survey respondents and focus group participants related less directly to the research questions of this study and instead were focused on wider contextual issues that participants felt needed to be addressed in order to ensure the success of any actions to decrease the graduate skills mismatch.

As noted findings above, research participants were aware that the employability and transferable skills that they identified as vital cannot be developed in isolation. The implications of this insight are that a review of pedagogical practice will be required to support the necessary curriculum change. Data from three focus groups and the literature review also highlight the belief that university education is too theoretical and knowledge-based. Whilst this may be addressed by initiatives that seek to combine workplace and academic learning, the nature of higher education curricula, and the place of knowledge and skills within those, is a universal challenge that may require wider consideration. Alongside any investigation of such issues, which involve debate on the nature and purpose of higher education, it may be useful to consider questions about how assessment could support any proposed changes to teaching and learning practices. A review of assessment and certification may be needed to support curriculum change: this may involve partnerships or collaborations between universities and professional bodies, as suggested by survey respondents and focus group participants.

Finally, this study raises challenges for employers themselves. In response to research questions, employers have noted recruitment and productivity challenges that they see as being caused by perceived graduate skills gaps. Whilst focus group participants were asked to reflect on their own role in this process, this was not a main focus of the research. Nevertheless, several participants stated that issues around what young people want and expect from employment, and how those wishes can be met, must also be addressed. A few suggested that this will require changes to secondary schooling, to educate young people about workplace conditions and requirements before they enter higher education. Some participants also acknowledged that it may require employers to consider what they can do differently to take account of the differing expectations of the generations who will be entering the workforce in the next few years. For example, employers may need to consider progression and remuneration packages and practices that go some way towards meeting the expectations of prospective entrants to the workforce.

Our research findings across the phases of our research and all three research themes, show recurring issues and challenges for employers in GCC countries seeking graduates with work-ready skills.

Such a degree of commonality provides reassurance that our findings are robust and can be taken as valid. The implications of the challenges identified are discussed in the next section of this report. Later in the report, we present recommendations for how these challenges can be addressed, addressing recommendations to the whole system, and specific recommendations for policymakers, higher education institutions, and employers.

## Discussion

The countries of the GCC have seen significant growth in their education systems over the past 20 years. We have seen those aspirations of diversity away from a reliance on the oil and gas sectors, and addressing the global challenges that the impact of new technologies and AI will bring to workplaces and economies, has resulted in investments that aim to boost technology, science and innovation. In this context, the importance of developing citizens and residents is critical to ensure that economic and social aspirations are realised. At the heart of this is ensuring education systems are well aligned with employer needs to serve these national aspirations.

Designing effective education systems requires well informed policymaking using a solid evidence base of what works and what doesn't work to achieve the desired national outcomes for learners. The aim of this study is to provide practical recommendations for higher education and training providers, and it does that by answering three key research questions: identifying current and future skills needs; analysing employer views of the role of higher education in reducing skills gaps; and establishing the impact of these gaps on employers' recruitment processes and organizational productivity.

This study explores these research questions using a theoretical framework based on the Skills Formation Theory, Work-Based Learning Theory, and Self-Determination Theory of Motivation, as outlined in Section 3 of this report. Here, we will discuss the study's main findings in the light of this theoretical framework with a view to shaping recommendations to meet policy and employer needs and achieve their intended impact. Of primary importance is the Skills Formation Theory, which underscores the necessity of aligning educational outcomes with labour market needs through long-term investments in education and training that enhance employees' productivity and thus drive economic growth.

With reference to the first of the three main research themes, current and future skills needs, the literature review identified challenges and needs of employers in GCC countries regarding the skills of graduates in three major categories: technical, transferable and employability skills, identifying priority sectors for diversification in each of the six GCC nations. The review found evidence that employers view practical skills and real-world readiness as essential but find these skills and qualities to be lacking in graduates. As well as seeking graduates with advanced technical skills, employers are also looking for graduates who have leadership and management capabilities,

and who can think innovatively to come up with solutions to problems. Looking to the future impact of technologies including AI, the review found that a workplace culture and individual commitment to continuous learning will be essential, as will be interpersonal and collaborative skills.

The findings of the literature review were borne out by analysis of the data collected during the study's two primary research phases, with both online survey respondents and focus group participants emphasizing the importance of a broad set of employability and transferable skills, identifying these as essential for current economic needs and to meet future workplace challenges, including the challenges that will be brought by increasing use of technologies and AI. Whilst digital literacy skills were identified as important, the development of critical thinking and problem-solving skills and analytical and innovative thinking were felt to be key. Equally important were interpersonal and teamwork skills. A focus on such broad employability and transferable skills is supported by the Self-Determination Theory of Motivation on which this study is grounded, as such skills are precisely those that are likely to increase the intrinsic motivation of work, providing workers with a sense of competence, belongingness/relatedness, and autonomy that is likely to persist through workplace and working practice changes.

With regards to the second of the main research themes, employer views of education and training provision, the literature review noted that over the past decade, the education and training landscape in the GCC countries has greatly evolved, driven by economic and social changes and substantial investments in education. Despite this, though, local talent with expertise in the skills needed is scarce, and there is currently a high reliance on expatriate workers. Overall, graduate outcomes are not seen as aligned with labour market needs, and while improvements in infrastructure and educational technology have been acknowledged, employers express mixed opinions on how well higher education institutions in GCC countries produce graduates with essential workplace skills. Many employers find the curricula disconnected from industry requirements and job market demands, and a lack of confidence in local education and training providers persists.

The review found that employers see their own role as that of providing specialized technical training through internships and on-the-job learning, and while acknowledging that communication between higher education and industry has improved in recent years, there are

calls for greater employer involvement in curriculum development, with effective communication and collaboration between higher education and employers seen as crucial to bridging the skills gap and ensuring graduates are equipped with relevant skills. It is suggested that mechanisms to improve communication and collaboration would bring improvements including a greater emphasis on practical learning and increased input to higher education programmes from employers via internships and work placements.

The primary research for this study has also highlighted the evolving education and training landscape in GCC countries and stressed the need for regular feedback from employers to higher education and collaboration in designing curricula. Suggestions for actions to address these issues included the establishment of formal and regular communication channels between higher education and employers, such as advisory boards. An increased use of internships and on-the-job training was the most favoured suggested mechanism to ensure that graduates' education-employment gap is bridged. In terms of their own responsibilities for training, comments from focus group participants suggested a need for increased availability of on-the-job training, provided both internally (to the employer) and externally, and targeted to local skills needs.

These findings, consistent across the three phases of this study, are explained in the theoretical underpinnings of the study. We can see the importance of the Skills Formation Theory for the development of employer beliefs and perceptions that educational inputs and outcomes must be aligned with labour market needs. The stress on practical and applied learning shows that employers support the view that combining formal education with well-planned work-based experiential learning and reflective practice develops the employability skills that have been identified as necessary, thus contributing to addressing skills gaps. This view came across consistently and explicitly through all data collection methods. The beliefs expressed by study participants are clearly underpinned by Work-Based Learning (WBL) Theory, which recognizes several WBL types (including internships and work placements) that are guided by the principle that formal education combined with hands-on workplace learning contribute to the development of employability skills, and that learning is most effective when it involves active participation and reflection on experiences.

In terms of the third of the study's main research themes, recruitment practices and challenges, the literature review found evidence that employers face challenges upskilling existing employees,

including upskilling costs. Small businesses in particular were found to be impacted by lack of management and entrepreneurial skills in graduates. To address recruitment challenges, employers have put in place a range of recruitment strategies, including using internships and apprenticeships to attract young people as part of proactive recruitment strategies. In-house training programs were another mechanism used to address skills gaps, and employers were increasingly motivated to collaborate with educational institutions. These findings from the literature were reiterated by the primary research, where employers commented on significant challenges in recruiting qualified graduates, citing skills mismatches and high expectations from graduates, despite those graduates lacking practical experience. Research participants saw this mismatch as requiring them to invest time and resources in training. They noted that this affects productivity and incurs costs. Participants also acknowledged that training accessibility has improved but believed that it often does not meet local industry needs, and geographical barriers still exist.

Taken together, the findings of the three phases of this study suggest that recommendations for actions to address the identified problems should:

- Strive to aligning educational outcomes with labour market needs to effectively promote the acquisition and development of the right skills and enhance employees' productivity.
- Combine formal education with well-planned work-based experiential learning and reflective practice, developing employability skills and contributing to addressing associated skills gaps.
- Include training programs and activities that leverage trainees' sense of competence, relatedness, and autonomy by developing employability and transferable skills.

The next section of this report presents recommendations that are in line with these principles and suggest mechanisms to address the issues identified through the literature review and by employers who participated in the online survey and focus groups.

## Recommendations

On the basis of the findings of this research study, taking into account the literature review, online survey and focus group data, the following recommendations for action are made. Almost all of these actions require communication and collaboration between higher education and employers, and several would also benefit from support from policymakers.

Recommendations are first set out for each skills gap that has been defined. These recommendations apply to both higher education and employers. For successful impact, these recommendations require a commitment from both and ideally should be implemented in partnership.

These skill-specific recommendations are followed by broader recommendations for each of higher education, employers and policymakers in turn. This section concludes by identifying some wider contextual issues, each identified by a few research participants, that may suggest a need for further investigation/research, and potentially for debates on the fundamental nature and culture of higher education in GCC countries.

### Recommended actions to address identified skills gaps

This study has identified current skills gaps and gathered views from experienced and knowledgeable employers about future skills needs. The skills gaps identified show a high degree of congruence between employers' current and future skills' needs: these comprise employability and transferable skills, as well as digital skills, that are felt to be important for current workplaces and that have been identified as gaining importance in the future in the face of technological developments including the introduction of AI.

In order to ensure that the current and future skills needs of private sector employers in GCC countries are met, it is recommended that the education and training sector and employers collaborate to ensure that the following developments are put in place.

#### Basic employability skills

- Educational institutions should incorporate employability skills such as dependability, attention to detail, and flexibility into their curriculum. This can be achieved through collaboration with industry via internships, co-op programs, and partnerships with industry professionals.

- Employers should ensure that employability skills such as time management and a strong work ethic continue to be nurtured in the workplace through mentorship programs, regular performance reviews, and setting clear expectations. Workshops focusing on time management techniques and productivity tools can also be beneficial.

### **Critical and analytical thinking and problem solving**

- Supported by employers, higher education should implement undergraduate projects and tasks that encourage the development of critical thinking and problem-solving skill and stimulate analytical and innovative thinking.
- Employers should encourage employees to tackle complex problems and think outside the box.
- Educational institutions and employers should collaborate to integrate these critical thinking and problem-solving exercises into curricula and training programs. This can involve case studies, real-world problem-solving scenarios, and projects that require creative solutions.

### **Teamwork, cultural understanding and communication**

Higher education needs to ensure that its academic programs and courses prepare students for workplaces that require teamwork and collaboration to solve difficult problems. This will require programmes that help students develop understanding of the multi-cultural environments that they are likely to experience in industries in GCC countries. It will also require students to develop their communication skills.

- Higher education and employers must both ensure that they foster the development of teamwork and collaboration skills. These skills should be explicitly built in to learning and assessment in higher education programs. Employers should create a workplace environment that values creative ideas and collaboration. Both higher education and employers should use team-building activities to enhance interpersonal skills and ensure effective teamwork.
- To bridge the communication gap, workshops and training sessions focused on enhancing both oral and written communication skills should be implemented. Encouraging presentations, group discussions, and writing tasks can help improve these essential skills. Such activities should be built into both higher education programs and employer training programs.
- Given the multicultural nature of workplaces, it is crucial that both higher education and employers promote cultural understanding and provide cultural sensitivity training and This can include language courses, cultural exchange programs, and diversity workshops

to help employees better understand and communicate with colleagues from different backgrounds.

## **Digital literacy**

Developing digital literacy skills has been identified as a key requirement both to address current skills gaps and is noted as a growing requirement as the impact of new technologies on the workplace increases. To address these current and future needs:

- The education sector, including higher education, should develop training programs targeting technology skills and ensure they are adaptable to evolving market needs, enhancing digital literacy and adaptability.
- Employers should invest in comprehensive digital literacy training programs for their employees to address gaps in digital skills, such as data analysis. This could include workshops, online courses, and certifications in relevant software, data analytics, and AI tools. Investing in training programs that focus on digital tools and software will ensure employees are well-equipped to handle current and emerging technologies.

## **Recommendations for higher education, employers and policymakers**

The following recommendations do not relate to specific skills gaps but are broad recommendations to be implemented by each of higher education, employers and policymakers in turn.

### **Recommendations for Higher Education Institutions**

This research has focused on the role of higher education and what it might do differently to decrease skills gaps that employers in GCC countries currently find in graduates. Accordingly, the primary recommendations of this study are recommendations for higher education. These recommendations cover issues of curriculum and pedagogy and recommend increased partnership working.

### **Curriculum, pedagogy and programme design**

Higher education should:

- Ensure that curricula are aligned with employer needs. They should regularly update curricula to match the evolving requirements of local industries, ensuring that graduates are equipped with relevant skills.

- Combine practical and theoretical training, integrating practical, hands-on training with theoretical knowledge to better prepare students for the job market.
- Offer flexible learning pathways and options that allow students to combine learning with work. Degree programmes with substantial industry placements would meet industry needs, but part-time courses, evening classes, and online modules, could also be considered to cater to diverse learner needs and schedules.
- Combine professional certificates from relevant bodies with degree programs to help students bridge the gap between theoretical knowledge and practical application and allow them to develop greater knowledge of an industry or sector before entering it.

## **Partnership, consultation and communication**

Higher education should:

- Establish mechanisms for continuous feedback from employers to ensure that degree and training programs remain relevant and effective. Greater communication and strategic partnerships between higher education institutions and employers should be achieved through regular meetings, advisory boards, and consultations.
- Develop partnerships with local businesses to offer internships, and other joint training experiences such as apprenticeships, and co-op programs, providing students with practical experience.
- Consider partnering with relevant established and respected professional bodies to jointly design, manage and certificate programs that lead to both degrees and professional certificates. Combining professional certificates with academic degrees will provide graduates with both academic and industry-recognized qualifications.

## **Recommendations for employers**

This research was aimed at investigating the views of employers on whether higher education provides graduates who meet their current and anticipated skills' needs. In this context, data gathered tended to focus on identifying positive practices currently happening in private sector employers in GCC countries. The recommendations recognise employer views on their own role and suggest that all private sector employers acknowledge their responsibilities in training by implementing and building on the positive practices identified in this research study. Recommendations are concerned with employer engagement with higher education, and also with employers' own training programmes.

## **Engagement with educational providers**

Private sector employers in GCC countries should:

- Actively collaborate with educational institutions to participate in curriculum development and communicate the skills required for future job roles.
- Support or establish formal and regular communication channels between employers and higher education institutions to ensure curricula are aligned with market demands.

## **Employer training provision**

Private sector employers in GCC countries should:

- Increase the use of internships and on-the-job training programs to provide graduates with induction into the industry and workplace and bridge the gap between theoretical knowledge and practical application.
- Implement mentorship programs for students during their university education and for new entrants to the workforce to support undergraduates and new graduates, helping them to transition smoothly into the workplace and reducing turnover rates.
- Develop robust and structured in-house training programs to upskill employees, ensuring that training meets the specific needs of the organization. This is likely to involve a dual approach to training, combining both internal and external methods. Internal training is essential for providing practical knowledge and helping new employees adapt to company culture. External training, such as conferences, exhibitions, and short courses, is important for exposing employees to new trends and ideas, and for reducing the burden on senior staff.
- Utilize online learning platforms to provide accessible and flexible learning options for employees to acquire new skills at their own pace.
- Create a culture of continuous learning, which is vital. Businesses can offer incentives for employees to pursue further education and professional development. Access to online learning platforms, attending industry conferences, and providing a budget for external courses can support this goal.

## **Recommendations for policymakers**

The role of policymakers was not directly addressed in this research study. Nevertheless, focus group participants and survey respondents made specific suggestions for actions that could only or would best be carried out by policymakers. Some of the suggested actions for higher education and employers would also have a much greater chance of successfully achieving their planned impacts if they had policymaker support and were officially sanctioned, encouraged and/or mandated by policies, and highlighted in policy statements and policy documents.

### **Support needed from policymakers**

In order to ensure that the skills gap being faced by employers in GCC countries can be mitigated, policymakers across GCC countries must recognize that the skills mismatch between graduates and employers' needs is a critical issue that demands immediate attention. Policymakers must support the positive actions of higher education and private sector employers. To achieve this, policymakers across GCC countries should:

- Encourage and/or mandate stronger collaboration between educational institutions and industry to ensure that curriculum and training programs align with the current and future needs of the job market. This may be achieved by setting up national or regional liaison/ advisory boards, or by mandating that individual universities do so.

### **Other actions needed from policymakers**

To address the issues identified in this research study, there are several other actions that policymakers could and should take to ensure that addressing skills gaps is recognised and acknowledged as a priority in policy and implementation of policies. To achieve this, policymakers should:

- Regularly assess skills gaps, developing research mechanisms and publishing reports and forecasts that monitor and anticipate employer skills needs. This should include regular assessments and surveys to identify the evolving skill needs of the workforce and analyse employment market trends. The results of these research exercises should be publicised and fed back to higher education and employers to help them to appropriately update the availability and content of learning and training programs, ensuring that employees are equipped with the necessary skills to meet the demands of their roles.

- Ensure that higher education policy is informed by the current issues faced by existing graduates, and audit both public and private universities to ensure that their offerings align with national policy and the economic requirements of the region and the institution's local area. Audit both public and private universities to ensure their offerings align with the region's economic requirements.
- Implement initiatives to make training more accessible in rural and remote areas, such as subsidizing travel costs for trainees or developing more localized training centers.
- Encourage in-house and vocational training programs within organizations to bridge the immediate skills gap. This can be achieved by increasing support and funding for industry placements and vocational training programs, particularly those that focus on local industry requirements.
- Invest in high-quality online training programs that are tailored to regional industry needs, ensuring that they reflect local sectoral practices.

This study has identified current and future skills gaps by reviewing literature and gathering views from experienced and knowledgeable employers. The skills gaps identified show a high degree of congruence between employers' current and future skills' needs. Employability and transferable skills are felt to be vital both now and, in the future, as are digital skills.

The recommendations above take account of the literature review, online survey and focus groups conducted as part of this research study. A key overarching recommendation is that there should be extended and enhanced communication and collaboration between higher education and employers, supported by policymakers and recognised as a priority in policy statements and policy documents.

Recommendations are provided on mechanisms to address each major skills gap that has been defined by the study. These recommendations will only achieve successful impact if both higher education and employers commit to them and apply them in a spirit of collaboration and partnership.

In addition to this caveat, there are certain contextual issues that are worth considering to support successful implementation of recommendation. Curricula may be reviewed and revised, in consultation with employers, but this will not achieve the aim of closing or eliminating skills gaps unless certain other conditions are also in place. Some of these contextual issues have been identified by those who participated in this research, in ways that suggest longer-term change may

be needed. Opening up debate on the educational cultures and views of the role of education in society may be necessitated. Suggestions are given below on contextual issues that may need further consideration.

### **Suggested areas for further investigation: educational context/culture**

This research study has investigated the views of private sector employers about higher education and how well it prepares its graduates to enter the workforce. As such, it has not considered wider contextual issues that may be at the root of some of the problems identified. There are several such wider contextual issues that could impact on the success (or otherwise) of any implementation of the recommendations above. Most of these were suggested by research participants, either directly or indirectly. This section highlights some of these wider contextual and culture issues, suggesting that it may be necessary to initiate investigations, research and debates on the role, nature and culture of higher education. Such further investigations and debates may include consideration of some of the following contextual or cultural issues, each of which was noted as important by at least a few research participants:

- **Contextual issue 1** – Various additions to curricula have been recommended in this report, focused on employability and transferable skills. As focus group participants noted, such skills cannot be developed in isolation, and will require a review of pedagogical practices as well as curriculum change. Structural change, to how learning programs are organized, who teaches them, and what learning experiences are made available to students, may also be necessary. The suggested increase in use of internships and work placements could play a central role in achieving successful pedagogical change. These should be managed through active collaboration between the university and the employer (as well as the student), with planning and feedback loops built in to the process, ensuring both student reflection and employer input
- **Contextual issue 2** – Research participants noted that they felt that university education is too theoretical/knowledge-based. Whilst this can be partially addressed by review and revision of curriculum content, the question of the place of knowledge vs skills is a universal challenge in 21st century education systems and may suggest that it would be useful to initiate a dialogue about the fundamental nature of learning in higher education.
- **Contextual issue 3** - Mechanisms to review and revise curricula will take account of the needs of particular employers in geographical areas at a particular point in time, but

consideration also needs to be given as to how to ensure that the needs of all employers are met, and that the curriculum is able to adapt and change at a rate that mirrors the rate of workplace change. A focus on employability and transferable skills that have been identified as important for all job roles can help to address the issue of some employers/ sectors potentially dominating consultation loops, and the necessarily slow pace at which such consultation loops often work.

- **Contextual issue 4** – This study has gathered and analysed how private sector employers perceive higher education in terms of how well it prepares its graduates to enter the workplace. Employers have noted recruitment and productivity challenges that they see as being caused by perceived graduate skills gaps. Whilst the study asked participants to reflect on their own role in this process, this was not a main focus of the research. Issues around what young people want and expect from employment, and how those wishes can be met, must also be addressed. This may involve educating young people about the workplace at a much younger age, but it may also require employers to consider what they can do differently to take account of the differing expectations of the generations who will be entering the workforce in the next few years. For example, employers may need to consider progression and remuneration packages and practices that go some way towards meeting the expectations of prospective entrants to the workforce.
- **Contextual issue 5** – Arguably, changes to curricula, and to teaching and learning practices, can only be truly effective when the activities that are introduced are assessed, certificated and accorded currency for progression to employment. A review of assessment and certification would help support curriculum change. This may involve partnerships or collaborations between universities and professional bodies, as suggested by some research participants.

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# Appendices

## Appendix One – Literature Review

Employer Perspectives on the Skill Gaps Amongst GCC Graduates - Literature Review

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## Overview

### Introduction

This literature review summarises the main findings in relation to the skills needed by employers in GCC countries: Bahrain, Oman, Qatar, Saudi Arabia, State of Kuwait, and United Arab Emirates. It explores the skills held by, and lacking among, current graduates from public universities, and the role of higher education in developing these now, and in the future. Also, how the latter affects recruitment practices among employers. Whilst it contains some insights into the issues and visions of each country, many findings relate to the GCC overall. These findings are summarised in three main sections: Current and future skills needed in the workforce, Education and Training Provision and Recruitment Practices and Challenges.

The review identifies skills in three major categories: technical, transferable and employability skills. Drawing on the strategic visions of the six individual countries, and wider economic reports, it focuses on key sectors such as Energy and Power, Manufacturing, Transport and Logistics, Tourism essential to economic growth, emerging sectors, and changing job supply in relation to developments such as AI. It draws on wider international trends to inform future thinking and will be used to shape the research plan for the RCEP commissioned work on *Employer Perspectives on the Skills Gaps Among GCC Graduate*, which will seek to confirm or challenge assumptions and findings within this document.

### Aims and objectives of the literature review

#### **The aims of the literature review are**

- To provide as full a picture as possible of the current skills possessed by recent graduates, and the skills needed by employers – and the gap between the two,
- to understand current skills provision, and the impact of this on employer recruitment practices, and
- to inform the questions for, and design of, the survey tools and focus groups which make up the rest of the research methods.

Ultimately, the intention of the research is to support policy decisions around skills supply in GCC countries.

## It will do this by providing

- As full a picture of employers' technical, transferable and employability skills' needs in GCC countries,
- Insights into current education and training provision, included but not limited to higher education, what is working and where the gaps are, and what changes are needed to graduate programmes to give future employees the skills and knowledge required by employers,
- Insights into the impact of the lack of suitably skilled graduates on the ability of organisations to recruit staff, and
- Recommendations on where to focus the survey and focus group questions.

## Selection of literature

This thematic literature review draws on a range of economic reports, journal articles, reports by international agencies, business consultancies and research consultancies. These include very recent reports such as the ILO's (2024) *Arab States Employment and Social Outlook – Trends 2024: Promoting social justice through a just transition*, Mishraf et al's (2023) publication *Nationalization of Gulf Labour Markets: Higher Education and Skills Development in Industry 4.0* and Mosly's (2022) *Education in the GCC: Developments and Trends*. Findings from these largescale reports are triangulated with news articles about employment, and sector and economic trends, to mitigate the risks of relying mainly on reports from international agencies.

In the sections on Current and Future skills needed in the workforce and Recruitment Practices, literature is drawn from no earlier than the past two decades to ensure relevance. The impact of the pandemic is drawn out in more recent data. Wider background and contextual literature is used without date restrictions.

## Background

The research is taking place against a background of economic change in GCC countries, where several factors are influencing the skills' needs of the workforce. Although traditional industries remain strong, a significant increase in population, the pandemic, advances in technology, an increase in tourism, a desire to adopt more sustainable working practices, and a reliance on

international labour at all levels of employment mean that employers are hampered in their ambitions to take full advantage of the opportunities available.

GCC countries have experienced a decline in oil production coupled with an exponential population increase, driving a need to diversify the economy. In 2019, most of that population were non-nationals, especially in the United Arab Emirates (UAE) and Qatar, where fewer than 15% of the population was made up of nationals (Shayah and Sun, 2019). Pay and conditions in the private sector in GCC countries are not as attractive to locals as those in the public sector. Whilst the official national language is Arabic, business in the private sector is often conducted in English, which makes jobs even less appealing and accessible to locals. There is also a negative impact on culture. The ILO (2024) reported that that the Arabic economies 'struggle to generate an ample number of high-quality jobs for those seeking employment' and that there are serious concerns over the quality and relevance of education skills development programmes in the region' (p.10).

Each of the GCC countries has been addressing its skills needs under the banner of 'Saudization,' 'Emiratization' and so on, intending to ensure that more jobs are available to nationals, however this has come with challenges. In the Kingdom of Saudi Arabia (KSA) for example, wages have been pushed up as nationals will not accept those previously paid to foreign workers (Al-Asfour and Khan, 2014).

In their article on the education and employment of women in KSA, Alhawsawi and Jawhar (2023) explore the vision, drivers, and barriers to gender equality in these areas. KSA has the lowest proportion of female workers among GCC countries, although numbers have improved in recent years. Ways to increase the employment of women are being sought (Alhawsawi and Jawhar, 2023). Whilst generally this has improved in recent years, KSA has the lowest proportion of female workers, which it is addressing within the limitation of cultural and societal boundaries. In the UAE, an increasing number of women are graduating from higher education, but the labour market does not have sufficient employment opportunities for them.

Additional barriers to the recruitment of skilled workers include the use of educational attainment as a proxy for skill, and age as a proxy for experience. Emigration among qualified graduates currently lacking employment opportunities in the national market is another issue (ILO, 2024). There are many economic opportunities – and environmental imperatives – attached to 'green' jobs. These are jobs which 'contribute to preserving or restoring the environment...in manufacturing and construction or in emerging green sectors such as renewable energy and energy efficiency' (ILO,

2024, p.66). It is challenging to fill these as those with the necessary skills are.

*'...tied to their original locations because of family or property commitments, making relocation to work in a green job a significant obstacle' (ILO, 2024, p.72)*

The ILO (2024) report discusses at length the importance – and difficulty of 'green transition' in GCC countries. A lack of skilled graduates is not the only factor with the potential to slow down this transition: cultural factors also play a significant part. The location of businesses and the use of technology to promote working practices which enable people to work wherever they live (at least in the main) are just as important as addressing skills shortages. This makes the location and delivery method of training as well as jobs an important consideration as part of the work to address skills gaps. The Strategy& (2017) report suggests that a growth in digital jobs in GCC countries would enable more flexible working to the benefit of both remotely located potential employees, and women.

The ILO (2024) emphasised the need to acknowledge and address temporal, geographical, sectoral, and educational misalignments in the availability of skills. Jobs may be created in one sector at a slower pace than that at which they are lost in another. Those changes in job availability might happen in a location, timeframe or sector which does not allow for the education sector to fill them as paper-based policy and plans might wish. During the pandemic, for example, the forced move to online retail required businesses to look at their distribution and supply chains as well as their ability to showcase goods in a different way (online). Hospitality and Catering in this period required fewer service staff and a greater number of delivery staff, for example. This also meant a reduction in the use of restaurant essentials such as crockery and cutlery, and the need for disposable goods such as takeaway boxes. These were in demand around the world and their manufacture and supply was essential to many restaurants staying in business, along with delivery capacity in the form of couriers and bikers, and online apps and menus to enable ordering. A high proportion of employees are in jobs which are at a high risk of disruption from new technologies. In Kuwait this was up to 91% of existing job roles (Strategy&, 2017).

## **Categorisation of skills**

Continuous learning and adaptability are key to staying relevant in an ever-changing job market (Mishraf et al, 2023). The future workforce will need a blend of technical and soft skills to navigate the complexities of the modern work environment. There are multiple definitions of skills given

in the literature, with technical skills referred to as ‘hard’ skills (Hendarman and Cantner, 2018) and examples of transferable skills crossing over with definitions of employability skills (Succi and Canovi, 2020). Mishraf et al (2023) position ‘workforce readiness’ as a combination of transferable and employability skills but add a further category ‘entrepreneurship’ (p. 327). Since the latter could be broken down further into ‘creative thinking,’ ‘decision-making’ and so on, it is difficult to know how to categorise individual skills.

Whilst some specific technical skills are identified in the literature, these will be explored in more detail through the survey and the focus groups. There is a greater body of literature on transferable and employability skills. By their very nature, these are required across a range of employers independent of sector, and therefore written about more widely. Alyani (2023) highlights the challenge of measuring and understanding skills needed since these are often described either at the level of the whole sector, or as gaps in the individual’s ability to carry out their job role effectively – and these two groupings may look quite different and require different solutions. One is a pre-employment supply issue, one a need for upskilling the current workforce.

Employers want to see transferable skills such as communication, teamwork, critical thinking, problem-solving and adaptability. They also report a ‘lack of comprehensive digital skills’ (ILO, 2024, p.43). Better definition of what employers mean by transferable skills in the GCC is required. Business development is a skillset applicable to all organisations, but it could be misleading to categorise it alongside teamwork or communication skills (Strategy&, 2017).

For the purposes of this report, skills will be grouped into three categories, technical, vocational, and professional (*henceforward technical*), transferable, and employability, as set out below in *Table 1: Skills Categories and Definitions*. There are no fixed distinctions but to be able to focus the primary research it is necessary to define clear categories. Being both a subset of technical and transferable skills, and easily the most sought-after category of skills, ICT and technology are also discussed separately below.

Skill category	Definition
Technical, vocational, and professional (Technical)	<p>Technical skills are job or domain specific, or specialist skills, usually acquired through technical training. They are context specific and associated with a defined job title or role in a sector. These skills are often assessed and certified as qualifications necessary for an individual to work in a particular role e.g. operating a machine, wiring, or plumbing, statistical analysis, or food production.</p>
Transferable (encompassing generic, core, key, soft or interpersonal skills)	<p>The most contested skills' definition is that of 'transferable' skills, which appear in the literature as 'soft,' 'core,' personal learning and thinking, and key skills. These are also the skills identified by the ILO (2017, 2014) and other recent reports as being those which are common to employers regardless of industry.</p> <p>Transferable skills are not tied to a specific discipline but are useful for most job roles. They include, for example, literacy, numeracy, communication, teamwork, problem-solving, analytical and IT User skills and information literacy, and the ability to work in a second (or third) language.</p>
Employability	<p>The author defined the categories to facilitate the writing of the report. Employability skills are distinct from transferable skills as they represent a set of attitudes and aptitudes which could be developed within or outside of employment, for example, good timekeeping, personal presentation, basic communication, either in education, in society and at home.</p> <p>These skills are a subset of generic/core/transferable skills and behaviours such as time management, ability to work under pressure, job acquisition, negotiation, presentation, interview</p>

Table 1: Skills categories and definitions

## ICT and technology skills

Alongside literacy and numeracy, a proficient level of ICT skills is necessary for employment, but clarity is needed around which are considered 'technical', ICT skills, and which are generic skills ideally to be held by the general working population. Most sectors require ICT skills such

as aspects of word processing, presentation, social media, and other transferable skills. There is also an increasing need for data analysis and software development and application. However, in addition to embedding such skills into education programmes, the rate of impact of recent technologies means ‘lifelong learning’ is a habit students will need to develop (Al-Ani, 2023).

Table 2 *Example of a skills framework by level, category, and location of skills development* (below) is based on the levels of the European Qualifications’ Framework (EQF)<sup>1</sup>. The EQF was chosen because it sits across the twenty-seven countries of the European Union, which has some common characteristics with GCC countries: similar ambitions to be successful as an economic group but with individual cultures, education systems and migration laws. Whilst preserving these individual characteristics, it is also important to know whether the knowledge and skills of an individual certificated in one country are valid and applicable in the country of potential employment. Many non-EU countries such as Turkey reference the EQF to ensure that their workers can also gain employment in more than their home country.

Skills level	Category of skills	Location of education and training
Levels 4-8	Management Advanced technical Leadership	Public and private universities and higher education institutions (HEIs) Internships Technical colleges Workplace training e.g. apprenticeship On the job training (lifelong learning/upskilling) Work experience
Level 3	Technical knowledge and practical skills without supervisory duties Independent working	Technical colleges Workplace training e.g. apprenticeship On the job training (lifelong learning/upskilling) Work experience
Levels 1 and 2	Basic employability skills	School, initial technical and vocational education, and training (IVET)

Table 2: *Example of a skills framework by level, category and location of skill develop*

<sup>1</sup> Levels taken from the European Qualifications’ Framework <https://europass.europa.eu/en/europass-digital-tools/european-qualifications-framework>

Levels 1 and 2 are the most basic levels of education and training, whilst level 8 is the equivalent of a PhD or the most senior professional training standard. In other countries such as England the lower levels are broken down further into a small number of 'entry' levels<sup>2</sup>. There is no 'correct' framework, it must work for the country or countries owning it. However, to be useful it must be easily comparable with frameworks in other countries to enable the qualifications of nationals to be understood in and transferable to enable them to work in a different country than that in which they were trained or educated.

### **Technical, vocational, and professional skills**

Occupational standards serve a similar purpose in allowing employers in a sector to have confidence that different technical qualifications in their industry cover up to date skills and knowledge, allowing employees to move between organisations. The focus of this report is on skill levels among graduates, but to address skills shortages, employers and school leavers, and stakeholders such as parents and teachers, must consider the place of technical, vocational, and professional training in the overall solution.

It is not feasible for Higher Education to address all the skills required by employers. Whilst employers may want graduates to come equipped with technical, transferable and employability skills, deciding how and where they will be developed will be a key part of policy planning. The strategy paper *From Regional Pioneer to Global Contender: The Economic Vision 2030 for Bahrain*, for example, refers to 'schools, vocational institutions, and universities' (p. 21) together as being part of the solution. There is more discussion on this in the section *Education and Training Provision* below.

Whilst it is out of scope for this study, the development of national or regional (cross-GCC) occupational standards in all sectors, alongside a comprehensive programme of apprenticeships and opportunities for continued professional development for graduates and longer-term employees, is an essential development. Standards can be used to benchmark employer-based training as well as being used as the basis for the development of qualifications and assessments to ensure that school leavers, graduates and those established in their careers have access to industry-standard training which delivers the skills demanded by employers and required for a successful economy. A coordinated approach involving employers, policymakers and the education and training industries is essential to a successful outcome.

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<sup>2</sup> [What qualification levels mean: England, Wales and Northern Ireland - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

It might be helpful to develop a competency framework of technology skills to ensure that opportunities for the development of both technical and transferable technology skills are available in education and the workplace (Vivek and Baby, 2023).

## Priority sectors

To begin to understand skills needs in GCC countries, it is necessary to identify the main sectors providing, or predicted to provide, employment and economic growth now and in the future. The ILO (2024) identified nine key sectors from countries' own national plans. The main six, roughly equal in importance, were renewable energy, manufacturing, tourism, transport and logistics, and information and communication technologies (ICT), and financial services. Agriculture, construction, and fisheries were important but less so. The report states that targeted training will be essential to meet the demand for '...skills in electronics, mechanical engineering, water desalination and *renewable infrastructure design and development*' (p.71).

SMEX10<sup>3</sup>, an online platform which has supported small businesses since 2005, reports areas of business growth, and therefore skills focus, as being sustainable business practices, fintech, tourism, retail, and healthcare. Sustainable business practices include, for example, sustainable procurement, which maximises the use of local resources whether for building, agriculture, or manufacturing, and minimises the unnecessary import of items which could be made, sourced or grown locally (van de Wijdeven and Glover, 2023). Sustainability applies to all businesses and national strategies supported by practical, industry-specific advice and incentives at both a national and organisational level can have a significant positive impact both on the environment but also on opportunities for local investment and the upskilling local labour markets.

A PWC blog<sup>4</sup> from this year has identified five economic themes to watch in 2024 including the rise of KSA as a tourist destination, the pervasive and transformative rise of GenAI and its impact on automated, personalised assistance and the emergence of the GCC as a key player in the global energy transition. The World Economic Forum<sup>5</sup> (2021) published an article online stating that industrialisation could future proof Gulf economies. Manufacturing, engineering, and transport and logistics all have a part to play, and a need for cross-skills training is identified.

The following figures were created for this report based on data taken from GCC Economic Statistics (2023, 2019)<sup>6</sup> and insights from McKinsey & Company into the economic impact of

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3 SMEX10, formerly SME Advisor Middle East, is a digital platform giving practical advice to employers across the region. It was established in 2005.

4 <https://www.pwc.com/m1/en/blog/five-economic-themes-to-watch-2024-gcc.html>

5 <https://www.weforum.org/agenda/202106/how-business-leaders-are-encouraging-diversification-of-mena-s-gulf-economies/>

6 Figures are original and were created based on statistics from the GCC reports

the first year of the pandemic. McKinsey have issued annual statistical reports for over a decade, and they therefore provide longitudinal insights from a respected source. Market insights were drawn from the United States International Trade Administration<sup>7</sup> and the wider literature. Economic statistics from 2018 and 2022 were chosen to reflect pre- and post-pandemic economic performance.

Whilst the figures reflect current strengths and the resilience of GCC economies post-pandemic, they do not fully reflect the ambitions of GCC countries to evolve and diversify their economies to take advantage of sustainable and technology-driven practices. Fossil fuels remained the strongest economic performers in all GCC countries with Mining and Quarrying in the UAE, and Oil and Gas production in the remaining five. Manufacturing remained steady in all six nations, and stayed the largest revenue generator in Bahrain, equal to Oil and Gas in KSA.

GCC employers need to attract sufficient skilled employees to sustain current market needs whilst building a workforce with different skills to support the transformation of the economy.

### Bahrain

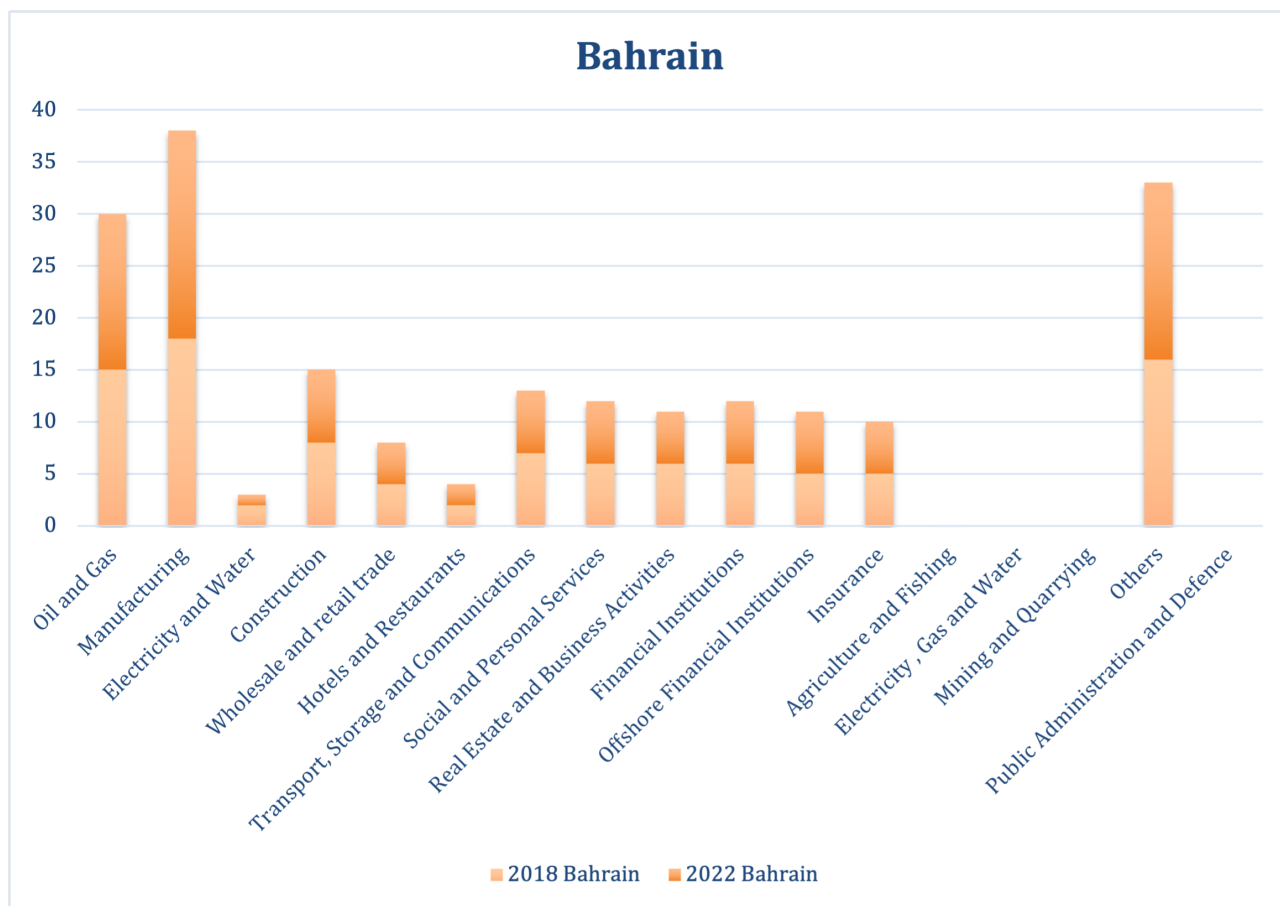


Figure 1: Bahrain: comparison of industry performance in 2018 and 2022

<sup>7</sup> <https://www.trade.gov/country-commercial-guides/>

The performance of the industries on which this research focused remained steady in Bahrain in this period, with a slight increase in manufacturing. Unsurprisingly, transport, storage and communications declined slightly over the pandemic. As in other GCC countries, the performance of on- and offshore financial institutions remained steady. Many of these were already reliant on technology prior to the pandemic and business could be conducted remotely. Bahrain has a reputation for being one of the most open economies in the Middle East and can therefore attract both investment and international talent with where skills shortages are identified.

There are currently four thousand Bahrainis a year entering the jobs market with a college degree or above, but insufficient jobs are being created in the private sector to accommodate them. More than two thirds of available jobs in the private sectors go to non-Bahrainis. The ambition is that by 2030, the private sector ‘will no longer equate competitiveness with low-cost expatriate labour, but will instead create productive, high-wage employment for Bahrainis’ (Economic Vision, 2030, p. 14). In addition, education will ‘provide ‘every citizen with educational opportunities appropriate to their individual needs, aspirations, and abilities’ (p.21).

## Oman

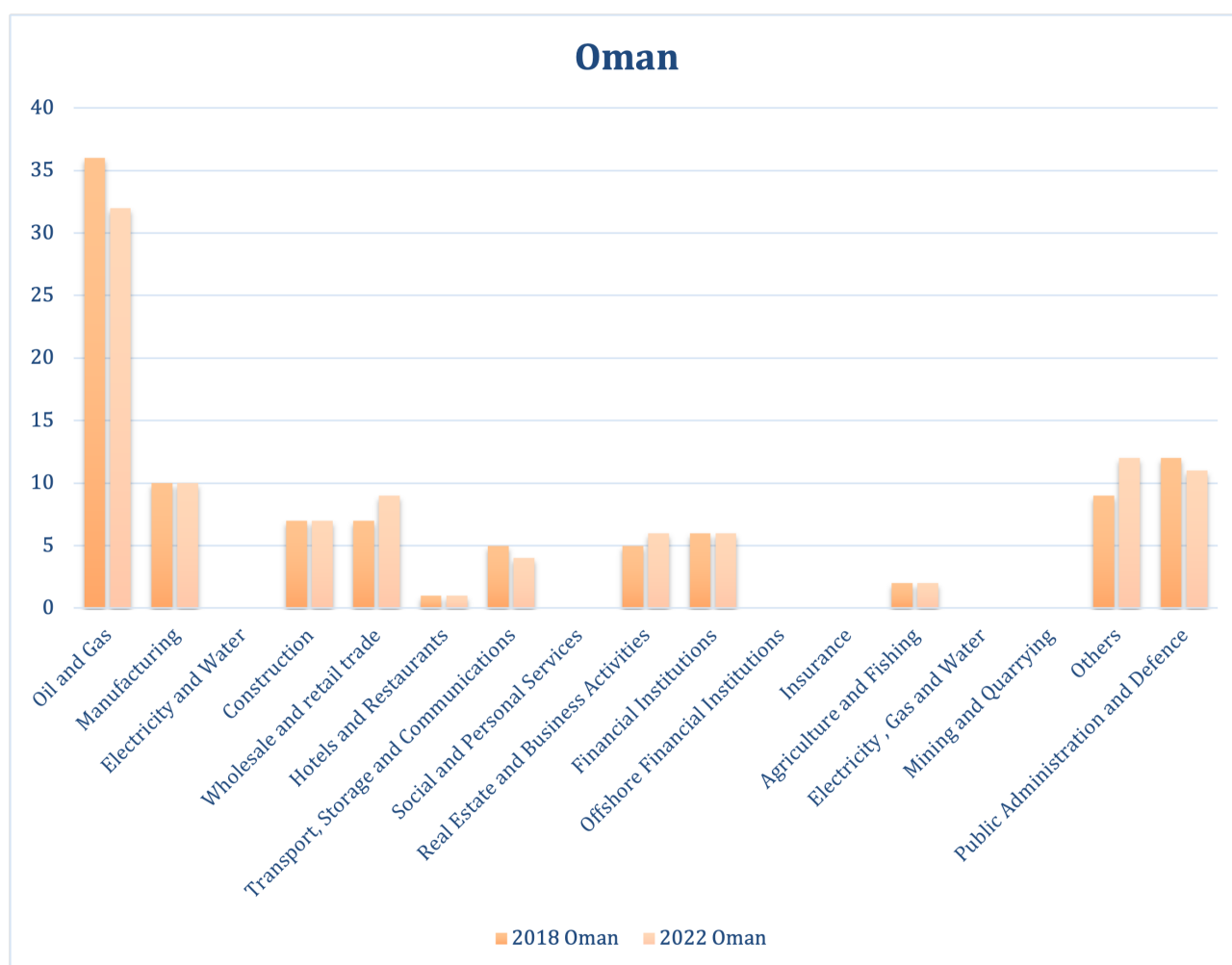


Figure 2: Oman: comparison of industry performance in 2018 and 2022

Oman is the only country to include public administration and defence in their industry performance statistics. Since the focus of this research is on the private sector, those figures will be ignored. Oman’s future economic vision extends to 2040 and includes education which is ‘consistent with the contemporary requirements of sustainable development and future skills’ (p.15) and ‘a diversified and sustainable economy that is based on technology, knowledge and innovation’ (p.19). Key growth sectors are healthcare, renewable energy, logistics, fisheries, agriculture, sport, and ICT<sup>8</sup>. The tourism workforce is expected to grow to 500,000 people by 2040, with all the jobs and skills that will entail (Berger, 2024).

## KSA

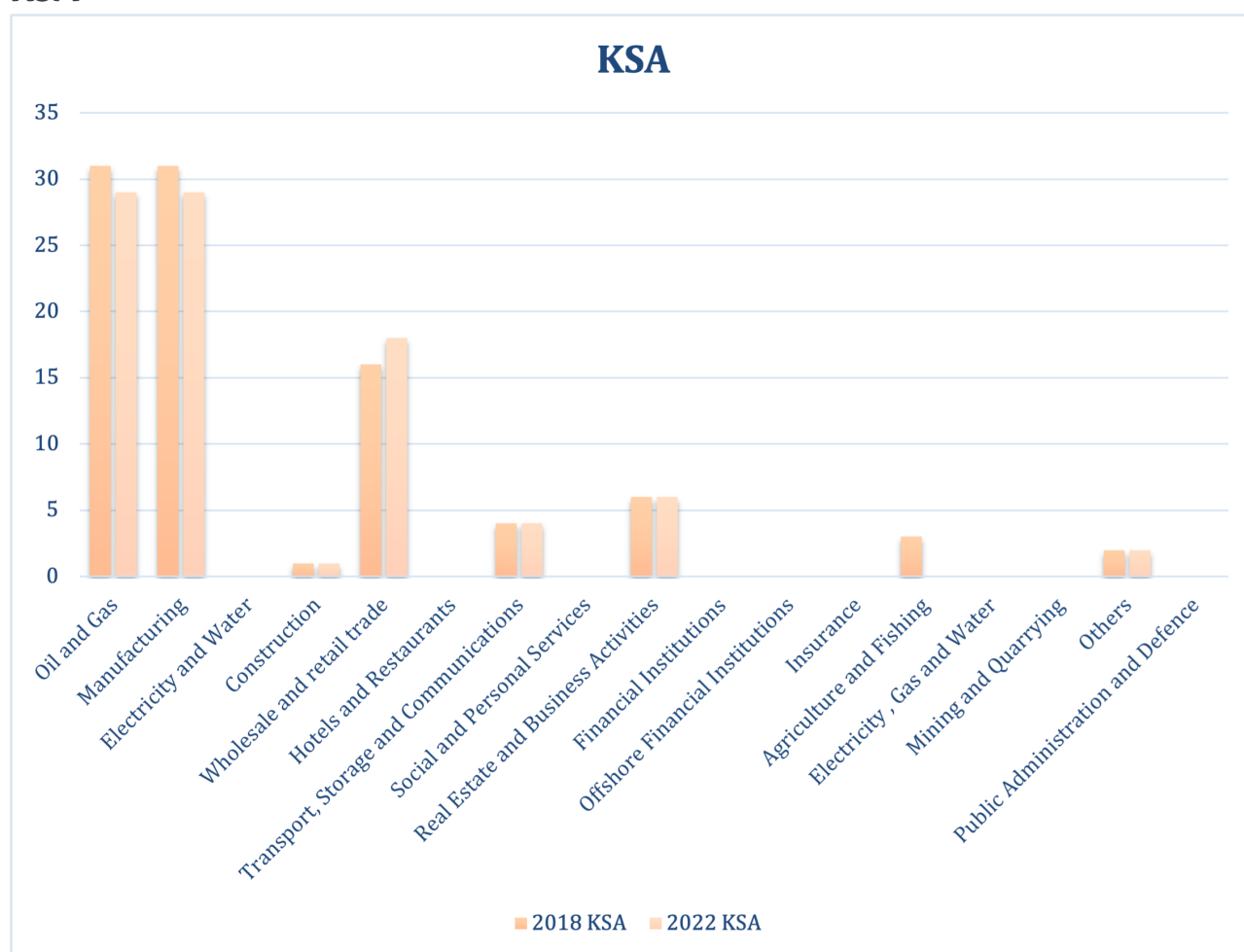


Figure 3: KSA: comparison of industry performance in 2018 and 2022

The ambitious growth plans for tourism in KSA, the plan to increase visitor numbers to 150,000 by 2030 (Roland Berger, 2024), and to cater for these with a growing number of 4\* and 5\* hotels, means the kingdom will require highly skilled operations managers and front of house staff to meet both visitor needs and expectations. In 2022, construction still seemed to be a very small proportion of GDP. This may be the case when set against the behemoth which is Aramco, but

<sup>8</sup> <https://investoman.om/key-sectors>

the tourism ambitions outlined in the Roland Berger report suggest that this sector ought to show significant growth in the near future. KSA's National Industrial Development and Logistics Programme 'seeks to 'rally diverse stakeholders in the industrial process around the shared objectives of the nation's Vision 2030 economic roadmap', with a specific focus on customisation over scale, and automisation over cheap labour (Raffoul and Hewaidi, 2024).

Whilst there is a clear narrative towards less dependency on fossil fuels, Saudi's Aramco continues to dominate in this industry, whilst investing heavily in renewable energy projects. The centrality of the location of GCC countries in relation to trade routes between Asia, Europe and Africa has resulted in powerful and successful transport and logistics hub. Healthcare in the region is looking to digital transformation and a greater use of AI to facilitate diagnostics, treatment, and care. In healthcare, there is an additional need to consider patient skills and competence around technology usage when implementing new systems (Alyani, 2023).

## Qatar

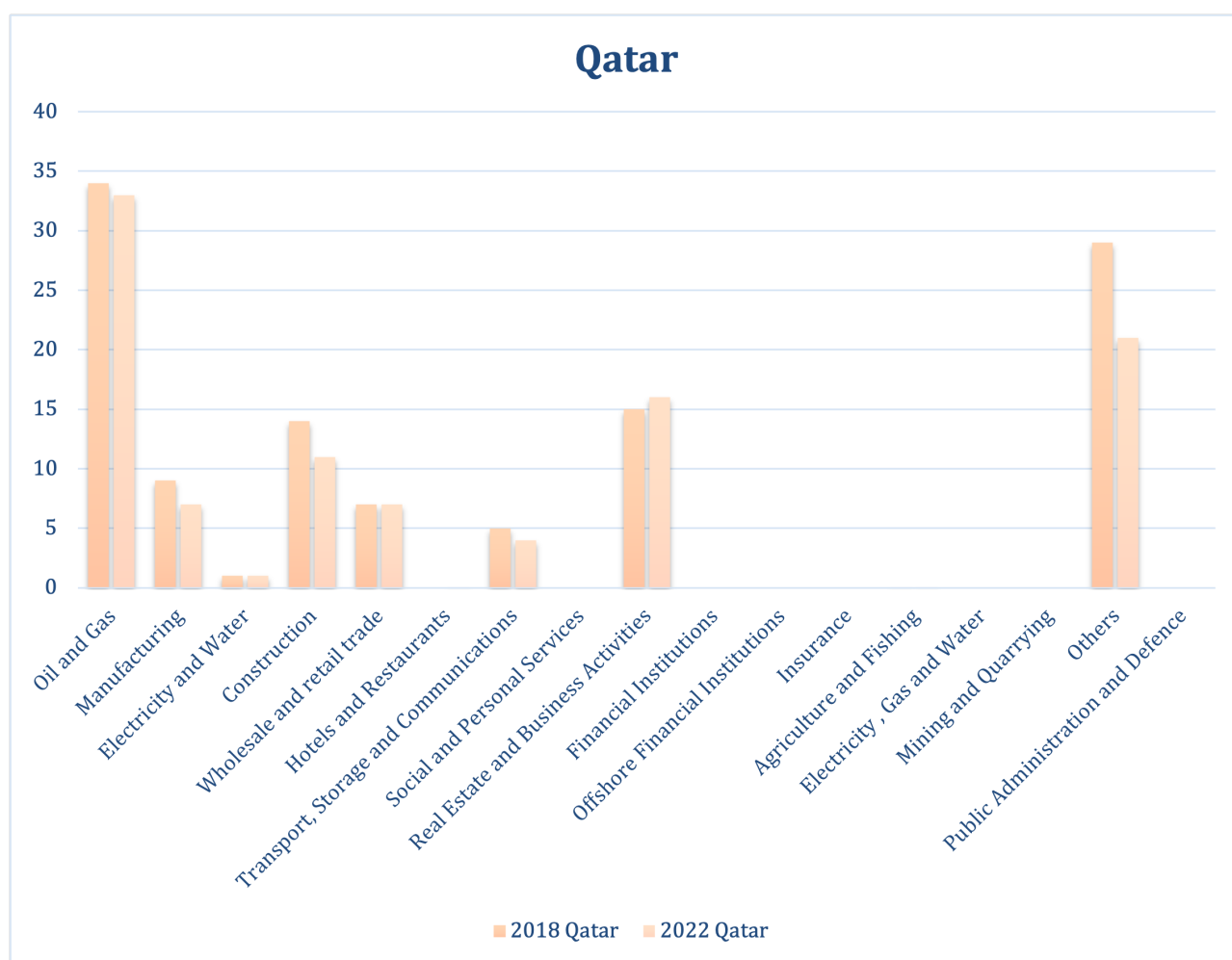


Figure 4: Qatar: comparison of industry performance in 2018 and 2022

The economies of Kuwait and Qatar are far smaller than those of KSA and the UAE, but proportionately, ambitions for growth in tourism are as strong. Alongside governance and product diversification, capacity building to boost skills among the workforce is one of the essential conditions for the successful implementation of the Qatari national vision (Roland Berger, 2024). Qatar’s national vision defines tourism, and transport and logistics as key future growth sectors, while IT and Digital, Financial Services and Education are described as ‘future enabling sectors’<sup>9</sup>. There is a significant emphasis in the vision on the ‘hyper’ powers of connectivity, computing and automation, and the ambition to deploy, develop and adopt digital technologies in the economy, government and society, but those with the skills to make this happen still need to be trained or brought in from elsewhere (Qatar Ministry of CIT, undated).

## Kuwait

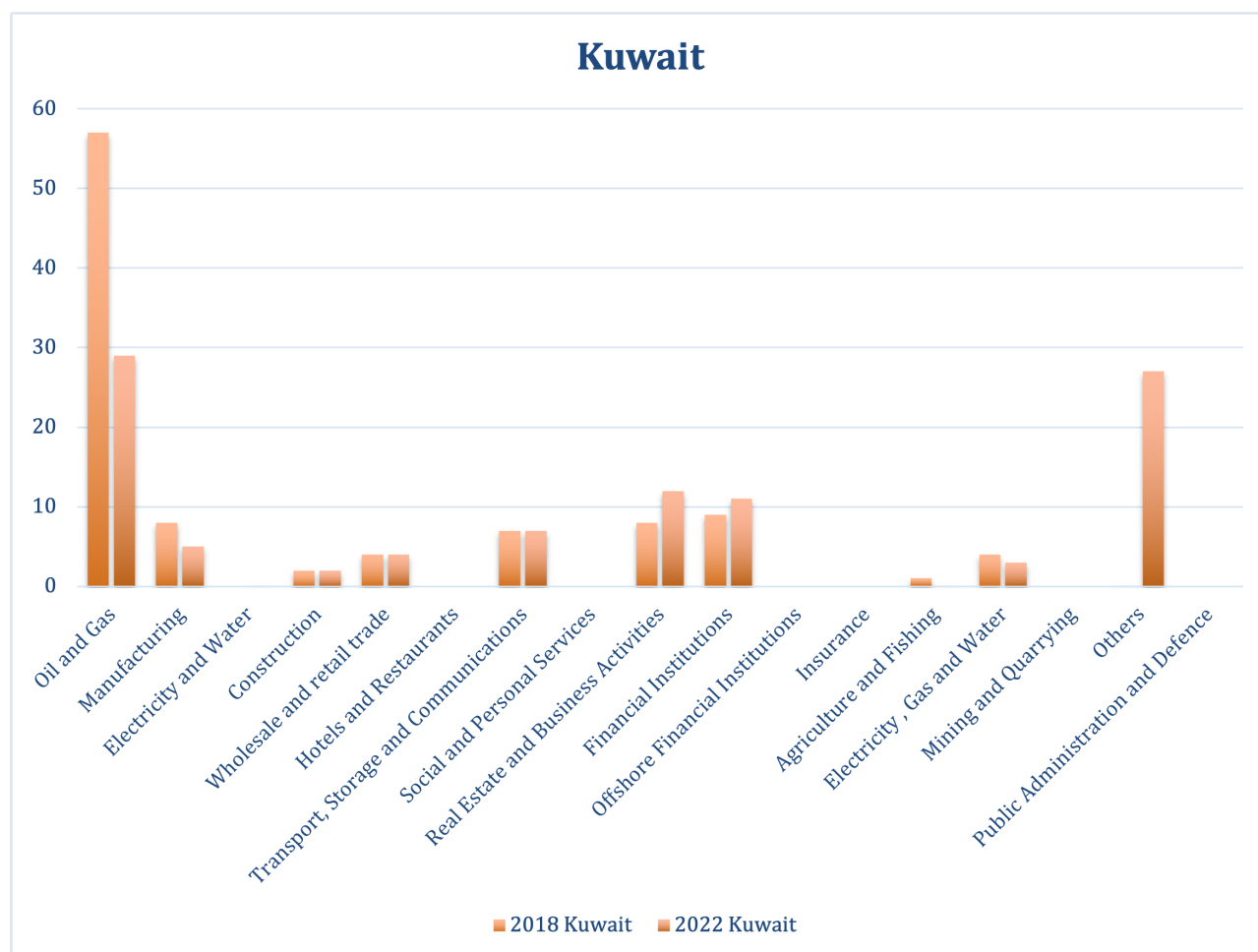


Figure 5: Kuwait: comparison of industry performance in 2018 and 2022

As with other GCC economies, Kuwait is looking to diversify its economy by transforming into a regional trade and investment hub. The country currently imports most of its food, manufacturing, consumer goods and capital resource needs but the manufacturing and pharmaceutical industries

<sup>9</sup> <https://imo.gov.qa/key-sectors-will-shape-qatars-future-economy/>

are growing (ILA, 2024). It has strong trade links with the USA, China, Japan, South Korea, and Germany.

Finally, the UAE stands out from other GCC countries with the existing size of its retail, and hotel and restaurant trades, which it also intends to grow exponentially. A high proportion of workers in the private sector in the UAE are foreign and as the literature showed, this creates significant skills and recruitment issues for employers.

## UAE

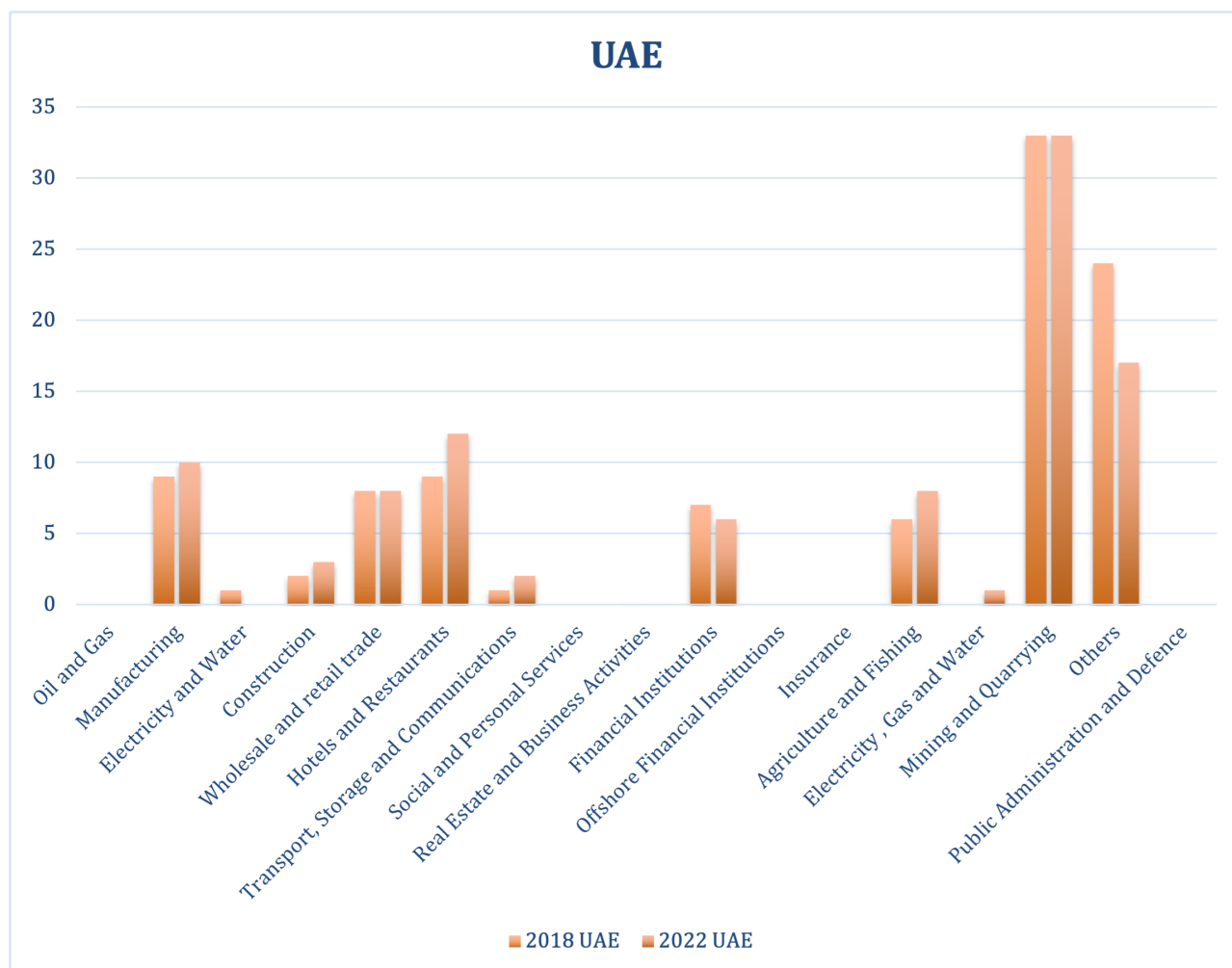


Figure 6: UAE: comparison of industry performance in 2018 and 2022

Employers need employees to have both the technical skills and the ability to apply them critically and creatively in a variety of business contexts to develop existing organisations and sectors, and to establish and grow new ones.

The retail industry is central to growth and a significant employment option for those with both logistics and ICT skills, reflecting both the growth in logistical operations and the need to increase e-commerce, driven by the pandemic. Real estate remains a key player in the economy. As well

as being its own entity, it provides work opportunities in terms of infrastructure building, skilled engineering, construction and maintenance requirements, and retail and hospitality work in malls, for example (Awad, 2018).

The energy sector will require skills in '*planning, installing, maintaining and operating new modes of energy production...advanced technical knowledge for solar panel design, managerial competencies needed to oversee a windfarm, or foundational skills for maintenance and operation*' (ILO, 2024, p.73). There is a need to capture more details about requirements for 'green skills' set out, for example, in by the ILO (2016). It is not possible for this research to explore all the skills demanded by employers.

There does not currently appear to be widespread use of occupational standards within GCC countries at present but the development of these would 'ensure that national employees entering the workforce market have relevant skills and knowledge for employment' (Younis et al, 2024). Where occupational standards exist, GCC governments should use these to inform what skills are needed – and the type and location of training – to ensure that all employer needs are met in the future. Bahrain, for example, worked with Germany to develop occupational standards in ten 'occupational clusters' such as Automotive Engineering and Retail Sales 2013 in support of its '2030 vision'. Some employers use them to create job descriptions and design training but their use is limited and the pandemic further slowed their wider adoption.

Where occupational standards exist in other countries such as the UK and Germany, qualifications based on these might be a short- to medium- term solution for the training and upskilling of the workforce. However, as is common in many countries, an inferior view of vocational training in comparison with an academic education continues to negatively impact employment prospects for nationals. In Qatar 'nationals have cultivated a culture that avoids blue-collar jobs and apperception that they do not need to do entry-level work assignments as these are jobs for expatriates' (Younis et al, 2024, p. 72) even though it is through these roles that many would learn the basic employability and transferable skills that employers demand.

Whilst the hospitality sector (hotel and restaurants) is barely mentioned in five out of the six GCC countries' list of priority sectors, 12% of the UAEs GDP is being attributed to this segment. However, the GCC is increasingly positioning itself as a tourism destination (Roland Berger, 2024) and it is possible that tourism and hospitality revenue currently falls under the 'other' category (see figures above). In the wider Middle East region, training and keeping talented hospitality staff

is an issue, therefore understanding what skills are needed is essential. Catering and waiting staff may not fall into graduate requirements but hotel operational and management staff may (GCC Economic Statistics, 2023, 2018).

The surge in e-commerce because of the pandemic is particularly notable. Fintech is a growing market in the GCC, but there are several regulatory, investment and language barriers affecting its growth. Whilst the latter is partly a skills issue, there are clear skills requirements around cybersecurity, data analysis - using larger data sets and cluster-based techniques to gain deeper insights - and operational efficiency which employers need to address (Khan et al, 2023).

### **Technology-enabled global success: the Mega 25**

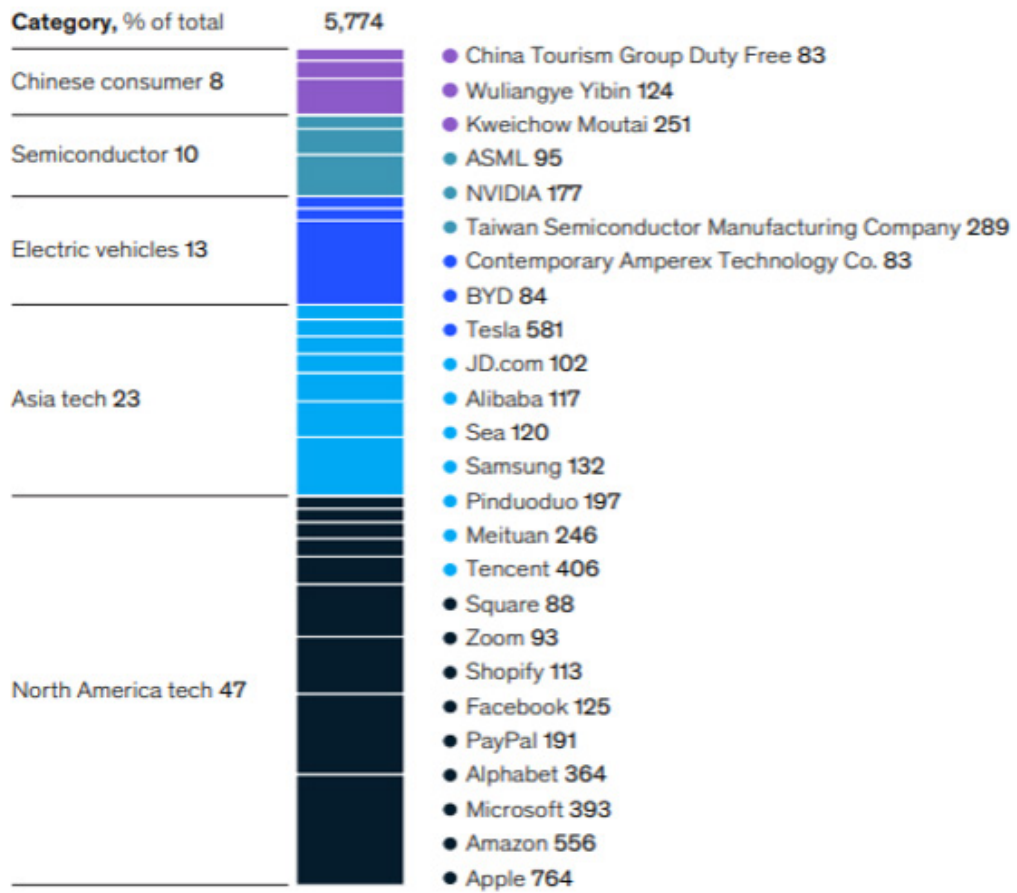
The wide range of specialist and generalist ICT skills GCC employers want graduates to have underpin the growth of the 'Mega 25' (Bradley and Stumpner, 2020), organisations whose growth during the pandemic was accelerated by the change in business circumstances and whose performance successful economies seek to emulate. Critically, all these companies were growing before the pandemic, the latter, however, accelerated their rate of success.

Many of the organisations on the list operate in GCC countries and some - such as Tesla, with a factory in the UAE, and Amazon, which has an operations hub in the UAE serving Bahrain, Kuwait and Oman - not only supply consumers but are future employment providers for those with the right skills. Expansion and growth in these businesses will likely shape demand for what kind of skills are needed in the job market in the future.

Exhibit 2

**The ‘Mega 25’ are a sector of their own, with exceptional market performance.**

**Market cap change since Feb 19, 2020, peak for Mega 25 companies,<sup>1</sup> \$ billion<sup>2</sup>**



<sup>1</sup>Figures may not sum to total, because of rounding.  
<sup>2</sup>At constant, average exchange rates.  
 Source: Corporate Performance Analytics; S&P Global

Figure 7: the Mega 25 Companies

## Research questions

This section is shaped by the research questions posed in the RFP. The intention is to answer the questions as fully as possible, firstly through the literature review and then with additional insights from the survey and focus groups.

## Research Themes and Questions

The literature review is focused around three main themes, each of which is broken down into a set of related questions.

## **Theme 1: Current and future skills needed in the workforce**

In relation to the private sector in GCC countries:

- What technical, transferable or employability skills are currently needed by employers, and are lacking among graduates?
- What is the alignment between graduates' acquired skills and the needs of the job market?
- What is the anticipated role of AI and new technological tools in the workforce?
- What is the impact of AI and new technological tools on existing skills?

## **Theme 2: Education and Training Provision**

To the private sector in GCC countries:

- What are the key drivers of growth in the education sector?
- What are the challenges facing the education sector?
- What are employers' perceptions of education quality from higher education institutions in the GCC?
- How do employers communicate with schools or higher education systems, if at all?
- What are employers' perceptions of the role of Higher Education Institutions in instilling important skills for the GCC workforce, versus their own role in training employees via training and development initiatives?
- Employers' perceptions of how higher education can reduce the skills gap between graduates and employer needs, and ensure greater availability of in-demand skills in the workforce
- What do employers perceive to be higher education institutions' role in instilling important skills for the workforce, versus their own role in training their employees via training and development initiatives?

## **Theme 3: Recruitment practices and challenges**

In the private sector in GCC countries:

- What challenges do employers face in finding qualified candidates, and how do they address these challenges?
- How do skill gaps among graduates influence employers' recruitment processes in the GCC region and their decisions on office locations?
- How do employers believe skill gaps among graduates impact the overall productivity and performance of their organizations?

Each section is addressed separately below.

## **Theme 1: Current and future skills needed in the workforce**

### **Technical, transferable and employability skills currently needed by employers and lacking among graduates**

There is significant crossover between the skills currently needed in GCC economies and skills that employers in the region believe are lacking among graduates. While students believed that they have good leadership skills, the ability to work in a team and the ability to take initiative, employers dispute this; saying that students lack interpersonal skills, and the ability to take initiative, for example.

Employers had mixed perceptions of the current skills of graduates, highlighting several areas of concern and some strengths (Fazli and Farooq 2023). Employers stress the importance of practical skills and real-world readiness, which often require bridging the gap between academic learning and workplace demands through work-integrated learning programs, internships, and continuous professional development (Mishraf et al, 2023a). However, the adherence to traditional practices, which emphasise formal credentials over practical knowledge, means that graduates in GCC countries frequently lack the hands-on experience and skills demanded by employers (ILO et al, 2023). It might be argued that some of these skills can only be developed in the workplace once, however, it is also a clear indication that what is assessed in education – mainly knowledge, in heavily theoretical courses – whilst valued in higher education, does not allow for the practical application of skills and knowledge sought by employers. Updating both content and the ways in which learning takes place and is assessed would go some way to developing the skills required in the workplace. Occupational standards and apprenticeships, mentioned elsewhere in the document but out of scope for this research, are relevant here.

Rao et al (2021) list digital proficiency (skills in social media, apps, e-commerce, and data analytics), adaptability and agility, and knowledge of sustainable practices in the retail industry as essential post-pandemic. Supply chains and retail strategy changed significantly in this period, and whilst there is still a need for physical retail space, the ability to meet customer expectations in the online space are essential. This is an excellent example of the need for employees to quickly adapt and reskill when their industry is disrupted.

Retail provides a good example of the need for employers to transform their business model and to implement and manage digital transformation strategies, from customer-facing applications to backend operations. Employers need to implement agile and resilient supply chains, align business practices with sustainability goals, and to be able to continuously innovate to face future crises and significant changes in industry best practice; by improving supply chain visibility, speed, and flexibility, such as automated distribution centres and last-mile delivery innovations. Digitisation allows personalised customer experiences using technologies such as augmented reality (AR) for virtual trials, interactive 'Magic Mirrors,' and AI-driven recommendation systems. This requires employees with both technical and creative skills to enable technologies to be implemented to the greatest effect. (Rao et al, 2021). Yet retail is only one of several significant economic sectors among many where these skills are in demand and where employers find themselves competing for skilled workers.

The range of technical, transferable and employability skills found in the literature is vast. To make the information more accessible, the skills employers need according to the literature, are set out in two tables below.

The first, *Table 3: Sectors and technical skills*, sets out a list of established and growing sectors in the GCC, and where available, technical skills associated with these as identified in the literature according to the definition of 'technical' in Table 1 (above). *Table 4: Summary of transferable and employability skills* summarises skills under those two categories according to the definitions in Table 1 (above).

Priority economic sectors in GCC economies	Associated skills
<b>Energy and Power</b>  <b>Renewable Energy</b>  <b>Oil and Gas</b>  <b>Electricity</b>	<ul style="list-style-type: none"> <li>– planning, installing, maintaining, and operating new modes of energy production</li> <li>– advanced technical knowledge for solar panel design,</li> <li>– managerial competencies needed to oversee a windfarm,</li> <li>– foundational skills for maintenance and operation</li> <li>– ‘green skills’</li> <li>– improvement of energy and raw materials efficiency, the limitation of greenhouse gas emissions, the minimisation of waste pollution</li> </ul>
<b>Engineering</b>	<ul style="list-style-type: none"> <li>– electronics,</li> <li>– mechanical engineering, water desalination</li> <li>– technical skills: using hand tools, assembly, piping, and other technical skills relevant to industries like manufacturing or construction.</li> </ul>
<b>Construction</b>	<ul style="list-style-type: none"> <li>– renewable infrastructure design and development</li> </ul>
<b>Manufacturing</b>	<ul style="list-style-type: none"> <li>– product management</li> <li>– operations</li> </ul>
<b>Tourism</b>  <b>Hotels and</b>  <b>Restaurants</b>	<p>No specific details of skills are given, but the GCC is looking to attract over 200 million tourists by 2030 (Roland Berger, 2024) so in addition to the obvious construction and infrastructure this will entail, feeding and accommodating this number of people will require significant investment in skills in hospitality and catering with many operational and management roles requiring graduates.</p>

Priority economic sectors in GCC economies	Associated skills
<p><b>Healthcare</b></p>	<p>Skills needs in healthcare align with technology skills needs, for example:</p> <ul style="list-style-type: none"> <li>– Enhanced connectivity and communication</li> <li>– Coherent data, intelligence, and analytics <ul style="list-style-type: none"> <li>• applied AI, Big Data, and analytics tools</li> </ul> </li> <li>– Additive manufacturing technologies (3D printing) <ul style="list-style-type: none"> <li>• advanced automation and robotics</li> <li>• amplified human-machine interactions</li> </ul> </li> <li>– Ability to tackle increasing instances of illnesses caused by increased pollution and more frequent heatwaves</li> <li>– Preventative healthcare <ul style="list-style-type: none"> <li>• diagnostic, monitoring and healthy lifestyle apps</li> </ul> </li> <li>– Skills to balance technology usage <ul style="list-style-type: none"> <li>• Mitigating over-reliance on technology by tackling automation bias and complacency</li> <li>• interpersonal skills</li> </ul> </li> </ul> <p>Alyani (2023) uses the OECD terminology ‘high touch’ to contrast with high tech skills to describe the requirements for successfully increasing technology use in healthcare. She argues that in addition to the need to modernise healthcare through the application of technology, this needs to be balanced with a human focus of greater levels of personal care: a reduction in administration, for example, should free up nurses to look after patient needs.</p> <p>SMEX1010 also mention ‘telehealth’, improvements to healthcare structures and the production of pharmaceuticals as needed skills.</p>
<p><b>Transport, Storage and Logistics</b></p>	<p>This sector will grow alongside the construction, manufacturing, retail, and tourism trades and should be explored as part of those.</p>

<sup>10</sup> [GCC Industries in Focus: Trends That Shaped 2023 \(sme10x.com\)](https://www.sme10x.com)

Priority economic sectors in GCC economies	Associated skills		
<b>Information and Communications Technology (ICT)</b>	<ul style="list-style-type: none"> <li>• Data skills</li> <li>• AI and machine learning</li> <li>• Data analytics</li> <li>• UX/UI design</li> <li>• Network planning</li> <li>• Marketing</li> <li>• Consulting</li> </ul>	<ul style="list-style-type: none"> <li>• Software development</li> <li>• Virtualization Application development</li> <li>• Internet of Things</li> <li>• Cybersecurity</li> </ul>	<ul style="list-style-type: none"> <li>• Technical support</li> <li>• JavaScript</li> <li>• Networking</li> <li>• HTML Java</li> <li>• SQL</li> <li>• Telecommunications</li> </ul>
<b>Real estate</b>	<p>The growth in the construction and tourism sectors will have a positive impact on the real estate industry. The retail industry is also impacted by e-commerce in that individuals are using social media to understand property markets and sell properties, as well as estate agents needing to reach national and international investors through their online offer, for example. All industries are looking for individuals to move commerce online and that means the pool of people with those skills is limited and therefore the advantages and disadvantages of using and needing technology skills in the workforce is compounded.</p>		
<b>Financial Services FinTech Insurance</b>	<ul style="list-style-type: none"> <li>– Digital technologies <ul style="list-style-type: none"> <li>• blockchain, AI, machine learning, and cybersecurity</li> </ul> </li> <li>– Regulatory knowledge</li> <li>– Data Analysis and Management <ul style="list-style-type: none"> <li>• proficiency in big data analytics and management is essential to leverage the data generated by fintech applications effectively.</li> </ul> </li> <li>– Customer service and relationship management (Khan et al, 2023)</li> <li>– Disruptive technologies</li> <li>– AI and data analytics, app experimentation, cyber security, chat bots, commercial banking innovation, cryptocurrency (Vivek and Baby, 2023)</li> </ul>		

Priority economic sectors in GCC economies	Associated skills
<p><b>Business and Management</b></p>	<ul style="list-style-type: none"> <li>– Overarching skills <ul style="list-style-type: none"> <li>• people management, operations management, business development, product management, program/project management, sales, marketing, support</li> </ul> </li> </ul> <p>Business incubator clients primarily need marketing assistance, business help, linkages to strategic partners, and networking activities. These services are crucial for their growth and stability. However, gaps exist in the provision of funding, loan guarantee programs, and advanced financial management support (Al Mubarak -Busler, 2010).</p> <ul style="list-style-type: none"> <li>– Tailored Incubator Programs <ul style="list-style-type: none"> <li>• incubation systems that integrate multiple incubator programs across strategic locations. This approach can link academic and industrial centres, fostering collaboration and resource sharing.</li> </ul> </li> <li>– Flexible Service Delivery <ul style="list-style-type: none"> <li>• incubators without walls to provide services to businesses regardless of location, leveraging digital communication and a pool of experts.</li> </ul> </li> <li>– Concept and International Trade Incubators <ul style="list-style-type: none"> <li>• incubators focused on early-stage business concepts and international trade to support local businesses in accessing new markets and global opportunities (Al Mubarak – Busler, 2010)</li> </ul> </li> </ul>
<p><b>Media</b></p>	<ul style="list-style-type: none"> <li>– media and communications <ul style="list-style-type: none"> <li>• technology skills including social media</li> </ul> </li> </ul>

Priority economic sectors in GCC economies	Associated skills
<b>Agriculture and fishing</b>	There are no specific skills given in the literature reviewed, but whilst this sector has shrunk in many GCC countries, it has grown in the UAE, therefore if the opportunity arises this should be probed with employers
<b>Construction</b>	– sustainable building practices
<b>Others</b> <b>Social and Personal Services</b>	This category makes up nearly one third of the GDP of Bahrain and is therefore worth exploring further in the survey and focus group in terms of what businesses make up this category and how these are affected by skills shortages. Social and personal services remain undefined, appearing only in the GDP categories of Bahrain (GCC Economic Statistics, 2023, 2018)

Table 3: Table of sectors and technical skills

Skill category	Example
<p><b>Transferable skills which employees can develop through any kind of work and take them to a different role or even a different industry</b></p>	<ul style="list-style-type: none"> <li>– English language writing <ul style="list-style-type: none"> <li>• vital for employment</li> <li>• correct grammar, punctuation, and spelling, and advanced vocabulary</li> </ul> </li> <li>– Mathematics knowledge (numeracy) <ul style="list-style-type: none"> <li>• Computing skills that are essential for modern job markets: proficiency with various IT devices, software, and applications; basic to advanced IT literacy including the ability to troubleshoot, maintain, and efficiently use information systems.</li> </ul> </li> <li>– E-learning: <ul style="list-style-type: none"> <li>• ability to utilise e-learning platforms for continuous skill development and staying updated with technological advancements</li> </ul> </li> <li>– Technical writing: <ul style="list-style-type: none"> <li>• Competence in producing clear and concise technical documents.</li> <li>• Skills in drafting formal reports, emails, and other business communication formats</li> </ul> </li> <li>– Interdisciplinary learning: <ul style="list-style-type: none"> <li>• combining different fields of study to address complex problems.</li> </ul> </li> <li>– Problem-based learning: <ul style="list-style-type: none"> <li>• focusing on real-world problems to make learning more relevant.</li> </ul> </li> <li>– Lifelong Learning: <p>encouraging continuous education and skill development throughout one's career</p> </li> <li>Entrepreneurship <ul style="list-style-type: none"> <li>– Innovation: <ul style="list-style-type: none"> <li>• developing new ideas and solutions.</li> </ul> </li> <li>– Risk taking: <ul style="list-style-type: none"> <li>• the willingness to undertake risks in the pursuit of rewards.</li> </ul> </li> <li>– Business acumen: <ul style="list-style-type: none"> <li>• understanding the business environment and making sound decisions.</li> <li>• Resilience and resourcefulness: <ul style="list-style-type: none"> <li>• the ability to recover from setbacks and find solutions to challenges.</li> </ul> </li> </ul> </li> </ul> </li> </ul>

Skill category	Example
<p><b>Employability ‘Individual’ skills which whilst also ‘transferable’ are valuable to workers in helping them obtain, keep, and be promoted into job roles. Also referred to as ‘workforce readiness’ skills (Deloitte, 2018 p.17)</b></p>	<ul style="list-style-type: none"> <li>– Communication: <ul style="list-style-type: none"> <li>• learning new skills, and relaying information</li> <li>• employers expect clear and concise verbal and written communication</li> <li>• ability to write formal reports, emails, and summaries, as well as the ability to present information clearly and concisely</li> </ul> </li> <li>– Interpersonal skills</li> <li>– Teamwork: <ul style="list-style-type: none"> <li>• working effectively with others</li> </ul> </li> <li>– Time management and flexibility <ul style="list-style-type: none"> <li>• coordinating one's time effectively</li> <li>• important in a competitive work environment</li> </ul> </li> <li>– Ability to work under pressure: <ul style="list-style-type: none"> <li>• managing stress and performing well under challenging conditions</li> </ul> </li> <li>– Lifelong learning <ul style="list-style-type: none"> <li>• reinventing and reskilling to access increasing changing jobs market</li> </ul> </li> <li>– Critical analysis and problem-solving</li> <li>– Work readiness <ul style="list-style-type: none"> <li>• the skills, experience, attitudes, and commercial understanding that enable new graduates to contribute to organisational objectives from the outset</li> </ul> </li> <li>– Technical interview preparation: <ul style="list-style-type: none"> <li>• ability to demonstrate technical knowledge and problem-solving skills in technical interviews.</li> </ul> </li> <li>– Emotional intelligence</li> <li>– Self-Presentation: <ul style="list-style-type: none"> <li>• professionalism and etiquette in a work environment</li> </ul> </li> <li>– Growth Mindset: <ul style="list-style-type: none"> <li>• openness to learning and developing new skills</li> </ul> </li> <li>– Interpersonal Skills: <ul style="list-style-type: none"> <li>• interpersonal problems and conflict management</li> </ul> </li> <li>– Leadership Qualities</li> <li>– Planning and Organising</li> <li>– Taking Initiative</li> <li>– Continuous learning and agility</li> </ul>

Table 4: Summary of transferable and employability skills

## Sustainability skills, and Science, Technology, Engineering and Mathematics

Sustainability, or ‘green’ skills are referred to throughout the literature and this review. The application of such skills differs from sector to sector, but the main questions remain similar:

- How can sectors reduce their reliance on fossil fuels, either directly or in their supply chain?
- How can sectors source the goods and services they need locally to support this aim?
- How can businesses (and governments) ensure that there is sufficient food and water for the population as the ability to grow and source is reduced by the impact of world population growth and scarcity of resources?

Many of the solutions to these problems lie in both scientific and creative education, and the use of technology to implement the ideas and innovations efficiently and effectively. Science, Technology, Engineering and Mathematics (STEM) are also mentioned in the literature, but their application is often specific to a sector (and in the case of Engineering, also a sector in itself) therefore no separate category is provided. However, in terms of education planning, as with a knowledge and application of technology skills, schools and universities must foster STEM and creative subjects to ensure that school-leavers and graduates can access and create opportunities for innovation and success in the workforce.

Interdisciplinary learning will be essential for graduates of the future: the bringing together of previously separate subjects, understanding the ‘business’ of engineering, construction, health and so on. Employers therefore require a workforce – and by extension, graduates – who are well-versed in AI, data analytics and other emerging technologies. There is a high demand for graduates with advanced technical skills, management capabilities, and innovative thinking (Umar et al, 2023).

### **Alignment between graduates’ acquired skills and the needs of the job market**

The literature reveals a mismatch between the skills students believe they have developed as part of their undergraduate studies and those employers would like to see in potential employees. Many students feel they have gained leadership qualities during their education, and that they are good at taking initiative, for example. However, employers disagree, believing that most graduates do not possess adequate leadership skills necessary for the workplace (Fazli and Farooq, 2023).

There is often a mismatch between the skills acquired by international students and the specific needs of the local job market owing to differences between what is taught at university and the practical requirements of employers in GCC countries (Umar et al, 2023; Buckner, 2022).

Elsewhere, despite the market’s urgency for the skills highlighted in this report, schools and universities are failing to adapt their curricula to meet these needs (ILO et al, 2023).

## **The anticipated the role of AI and new technological tools in the workforce**

Mishraf et al (2023a) found that AI is crucial for driving the transformation of skills and employment in the modern economy. Continuous learning, interdisciplinary education, and strong collaboration between stakeholders are essential to harness the potential of AI and prepare the workforce for future challenges.

Employers in Qatar and the UAE consider digitisation to be the adoption of one specific technology in their business rather than the more common broader transformation envisaged (Strategy&, 2017). Technologies such as generative pre-trained transformers (GPTs) have become available for daily use and individuals are using them to create new ways of working and reducing the time needed to find and collate information and perform a wide range of tasks. It still requires skills and knowledge, however, to ensure that that the result is accurate.

Technology is expected to improve productivity, efficiency, and quality. Respondents to the CIPD survey (2016) believed that advances in technology would have an impact on their organisations in five years' time- and that was before the accelerated impact of the pandemic and the arrival of GPTs. Reassuringly, 85% of respondents expected the impact to be a positive one. Whilst computers may replace people in repetitive activities and retrieval, for example, people will complement computers in areas of creative, problem-solving and leadership, for example – precisely the skills employers in the region say graduates are lacking (ILO et al, 2023).

## **The impact of AI and new technological tools on existing skills**

There is a lot of speculation in the media internationally about the exciting possibilities of AI and GenAI, but also about the 'profound and widespread effect on...economy and society' (DfE, 2023). Finance, law, business and management roles are all impacted by AI and large language models (the foundation of GenAI tools). Distinctions are made between exposure to, and impact from, AI tools. That is to say that many professions such as teaching, business and telemarketers will have a high exposure to AI tools but many of the impacts will be positive, promoting personalisation, efficiency, and quality, for example, when used correctly.

Studies in the UK (DfE, 2023) and the United States (Felten et al, 2023), from which a similar UK study took its methodology (the AI Occupational Exposure measure) provide insights into the impacts of AI and new technological tools which can be further explored with employers in GCC

countries. Whilst the studies found that AI would have a profound impact on a range of jobs, it also found a positive correlation between the use of AI tools and the mean or median wage in the industry affected. Individuals who are able to innovate using AI, to make some aspects of work more efficient or effective, freeing resources to concentrate on other jobs to find new ways to meet customer needs, will add value to the employer and to their own role. In other words, whilst jobs will be affected, those with the skills to use AI and other technologies to their advantage would improve their earning power.

Felten et al (2023) describe the act of trying to understand how AI will affect work as 'like trying to hit a moving target' (p.2) as the capabilities of these technologies are still advancing. Errors made by early versions of these technologies created nervousness around their reliability, and overseeing how these technologies are implemented remains important.

The impact of AI will need to be explored in the primary research to understand local and sectoral interpretations of concerns and impacts in GCC countries.

## **Theme 2: Education and Training Provision**

Over the past decade, the education and training landscape in the GCC countries' private sector has undergone significant transformation, which has been driven primarily by economic and social changes (Mosly, 2022). These changes in all the GCC countries have been spurred by documented economic visions and well-defined agendas at the national level, including education as one of their main pillars (Mosly, 2022). A close examination of the GCC visions (Abu Dhabi Economic Vision 2030 and Dubai Plan 2021; Saudi Vision 2030; Kuwait's Vision 2035; Economic Vision 2030 for Bahrain; Oman Vision 2040; and Qatar National Vision 2030) yields common grounds in terms of points of foci. They all aim at improving the quality of education and developing a strong educational base/system. They, also, emphasise training and empowering human capabilities; the creation of a knowledge-based economy and society founded on economic diversification and sustainable growth principles; and the preparation of their citizens for competing in the future labour market locally and globally.

These country-specific visions have led to substantial investments in the educational sector in terms of funding and financial commitments on the part of all GCC countries (Alpen Capital, 2023; Mosly, 2022). Education and the development of human capabilities through upskilling and

reskilling, particularly among nationals, has long been acknowledged as a key strategic priority (Shayah & Sun, 2018). The investments in the education sector have resulted in the fostering of a robust educational infrastructure both physically and digitally (Alpen Capital, 2023). This is in addition to bringing about clear progress in curriculum enhancement, educational technology, human capital development, and training (Mishrif, Karolak, & Mirza, 2023).

### **Industry 4.0 and the limited availability of technology skills**

Despite these developments, and even though the GCC countries have for some time now adopted the decision to incorporate and integrate Industry 4.0 technologies, the technical and non-technical skills required for engaging in such advanced technologies are still limited in availability locally (Mishrif, Karolak, & Mirza, 2023). Industry 4.0 technologies represent an advanced revolution, exemplifying a growing trend in digital transformation in manufacturing, through the application of four main foundational technologies, as identified by McKinsey & Company (2022), which are: (1) connectivity, data and computational power (e.g., cloud technology, blockchain); (2) analytics and intelligence (e.g., artificial intelligence, big data analytics, machine learning); (3) human-machine interaction (e.g., virtual reality, augmented reality, robotics and automation); and (4) advanced engineering (e.g., additive manufacturing, renewable energy).

Industry 4.0 technologies are relatively new and are not widely used outside advanced industrial countries. This makes it challenging for the GCC labour market to find local talent with the expertise needed to work with and apply these technologies and leads to the high reliance on expatriate workers especially in the private sector companies. They not only come with the necessary skills but also often accept lower wages than the locals (Mishrif, Karolak, & Mirza, 2023).

Such technologies have a significant impact on learning opportunities, educational policies, and instructional procedures (Al Lily, Elayyan, & Alhazmi, 2018). They, along with other 4.0 products, are important to apply in education to equip students with the competencies and skills needed for understanding and dealing with future challenges (Elayyan, 2021). They are also critical technologies partly because they are “projected to transform the skill sets of the workforce by shifting the standards for sought-after talent” (McKinsey & Company, 2022).

Additionally, there has traditionally been in the educational systems of the GCC countries a greater focus on the humanities than on the technical fields, which are crucial for Industry 4.0 technologies. This is despite the substantial investments in education infrastructure and

curriculum development mentioned above, and which has, consequently, led to the creation of a gap between the skills taught and the skills required by the labour market, especially in technical fields (Mishrif, Karolak, & Mirza, 2023; McKinsey & Company, 2022). This gap is exacerbated by a lack of investment in higher education and research and development (R&D) in the GCC. This continues to be considerably below global averages, with an average R&D spending of 0.89% in the GCC in comparison to a 3% world average (Mishrif, Karolak, & Mirza, 2023). This has had adverse impact on the development of advanced technical skills and innovation locally.

Alongside 4.0 technologies it is projected that over the coming decade, there will be a 30-50% rise in demand for social and emotional skills, complex cognitive skills, and technical skills such as coding (McKinsey & Company, 2018). Simultaneously, demand for basic literacy and numeracy skills as well as for physical and manual skills in repetitive tasks is expected to decline by almost 20-30% (McKinsey & Company, 2022). Considering that the skills expected to be in greater demand, according to this projection, are exactly the ones that are now lacking in the GCC countries, clearly highlights a skills gap in the region that is likely to persist in the near future if relevant and effective measures are not implemented. This obviously has implications for the education sector in terms of the types of graduate outcomes it is expected to produce for the near future. Central to these implications are the evolving roles that higher education institutions (HEIs) and vocational training institutes can have to ensure proper alignment of graduate outcomes with labour market needs. Understanding the main growth drivers for the education sector and its challenges is essential to address these implications.

### **Key Growth Drivers for the Education Sector**

The key growth drivers for the education sector in the GCC countries are many, including financial investments, favourable demographics, an increasing demand for education, economic diversification, and newly introduced measures to facilitate international talent recruitment to help with local skills development and training. Certainly, this list is not exhaustive; however, it is sufficient for clearly highlighting the main factors pushing education forward in the GCC, which are elaborated on in the subsequent paragraph.

Apart from the funding and financial commitment as a key growth driver for education in the GCC, favourable demographics, with a young rising population, is considered another driver leading to increased demand for education and a surge in student enrolment (Mosly, 2022). This

has brought about greater investments in education and training, especially in the private sector, due to preference for private education and an influx of private operators in the GCC (Alpen Capital, 2023). Diversification of economies away from oil dependence is another key growth driver, as its efforts are driving investments in education and training initiatives that are considered critical for the creation of a knowledge-based economy (Shayah & Sun, 2019). Additionally, newly introduced relaxed measures such as new visa categories as well as other similar initiatives to attract expatriates and recruit international talent constitute another growth driver, promoting higher education and workforce development (Alpen Capital, 2023).

## **Challenges Facing the Education Sector**

As is the case with the key growth drivers for education in the GCC, the list of challenges facing the sector as presented here is not exhaustive. Again, however, it is a list that aids in providing a clearer understanding of the sector's status. The challenges for GCC education expounded on below mainly pertain to below-average performance on international educational assessments; an existing dissonance between employers' expectations of graduates' skills on the one hand and actual existing skills on the other; lack of alignment between university students' majors/programs of study and labour market needs; poor partnerships between industries and HEIs; unavailability of meaningful work-based placements and internships most of the time; and Technical and Vocational Education and Training (TVET) programs that are in need of greater support and development.

The first challenge persists particularly at the K-12 level and is represented in the lower-than-average performance results on international assessments (e.g., PISA, TIMSS, PIRLS) (Mosly, 2022). Although many criticisms from scholars have circled around these types of assessments, such as them being more of an economic measurement rather than an educational one and their lack of focus on learners' engagement (Niyozov & Hughes, 2019); each of the six GCC countries has been ardently implementing initiatives that could help improve their scores on these international assessments (Mosly, 2022). These initiatives are all guided by the national reforms and visions of the GCC countries and align well with their implemented strategies for improving and developing their educational systems in general, and their schools and teacher-training programs and colleges in particular. In relation to this, major investments and efforts have been directed towards infrastructure and curriculum development, integration of advanced technologies in teaching and learning, and expansion of access to quality education in schools in Saudi Arabia, the UAE, Qatar, and Oman, as an example (Mosly, 2022). Initiatives such as the "Madrasati" e-learning platform in Saudi Arabia, which has been ranked among the best global e-learning platforms, and the Qatar

Foundation for Education, Science, and Community Development, are noteworthy to mention here as exemplifications of major GCC ventures that continue to play a significant role in the educational sector enhancement in the region.

As for Kuwait, its main focus has been on the development of new schools and the improvement of existing ones through the Kuwait Schools Development Program; while in Bahrain the greatest emphasis has been on improving the quality of teaching through professional development programs for both teachers and school leaders (Mosly, 2022). A common theme, also, which is shared by all GCC countries, is the acknowledgement of the need for investment in early childhood programs, as the foundation for future learning. This is in addition to the major efforts exerted in all GCC countries to strengthen relevant collaborations with international educational organizations and increase engagement in global education initiatives, to acquire best practices and stay abreast with the latest trends and developments in the education field (Mosly, 2022). All these initiatives and more demonstrate robust attempts at improving educational outcomes in the GCC countries and achieving better performance in international assessments.

Another significant challenge is the skills gap that is evident in variation across and within states of the region (International Labour Organization, 2021). A simple definition of a skills gap is “the disconnect between the expectations of employers of the skills graduates have and the skills graduates have gained during their degree” (Otermans, Aditya, & Pereira, 2023; p.136). The gap that exists relates mainly to employability skills such as creative and independent thinking, problem-solving and soft skills, in addition to specific practical skills related to the job/work sectors (International Labour Organization, 2021). An earlier study by Hassock (2019) had also pointed to the important soft skill of communication and identified, in addition, the need for a stronger work ethic and a focus on lifelong learning. A unique example of where both hard skills (i.e., technical skills and job knowledge) and transferable skills are equally important and in demand is the UAE context, mainly due to the work landscape of the country that relies heavily on expatriates from more than 200 nationalities (Ivanova et al., 2022). Similarly, although to a lesser extent, other GCC countries also have a high reliance on expatriate employees in the private sector in comparison to the local citizens (Shayah & Sun, 2019), with a persistent need locally for both soft and hard/functional skills.

Several factors have been identified in the literature as widening the gap between the labour market needs and the graduation outcomes of higher education (Ryan, 2023). These include a high percentage of university students being enrolled in programs that are not aligned with the job roles that are in high demand in the market (MiSK Academy, 2020; City & Guilds Group, 2020). This is in

addition to poor or superficial partnerships between industries and HEIs; incongruence between student perceptions and employers' needs; poor quality of education and lack of relevance to 21<sup>st</sup> century skills; and challenges with work-based learning and internships (MiSK Academy, 2020; Hassock, 2019), among them the lack of employers' ability to mentor and understand work-based learning requirements (Lawrence, 2024).

What exacerbates the gap issue are the multiple challenges that many of the Technical and Vocational Education and Training (TVET) programs in the GCC face, including: outdated curricula; poorly equipped institutes; lack of professional development; poor coordination and cooperation with the labour market's private sector; limited pathways connecting TVET students with higher education; and poor TVET student outcomes (International Labour Organization, 2021). The GCC represents a context where TVET systems have not been well-established and where there is a need to shift attention from academic tertiary education to structured work-based and applied learning, preferably formal apprenticeships, which can contribute to the achievement of national digital economy goals (Lawrence, 2024).

As demonstrated in the sections above, the education sector in the GCC countries is impacted by several key growth drivers as well as by important challenges. While the sector faces a noticeable skills gap between HEI graduates and labour market needs and expectations, as well as weak collaborations and partnerships between the HEIs and the industries and also between the HEIs and the TVET providers that are somewhat insufficiently attended to; the sector, simultaneously, is well-funded with huge investments directed at its development, and is also well-supported in terms of training and international talent recruitment initiatives that can aid it in meeting the existing rise in demand for education among the GCC population as well as the needs for economic diversification in terms of skills and competencies.

With the key growth drivers and challenges impacting the education sector in the GCC countries revealed, it is important to note that the topic of labour market issues, employability, and education in the GCC countries remains to be in need of further research (Almesad, 2021); as in most of its aspects, there seems to be a scarcity of empirical field studies, especially when it comes to employers' perceptions of graduates' employability and related issues (Hassock, 2019). This dearth of research was also noticed when working on the research project in hand and this, consequently, provided a stronger justification for the discussions in the subsequent sections that happen to delve into how employers perceive HEIs' quality of education; how they communicate with these institutions; and how they view their own roles and the roles of HEIs in skills' development.

## **Employers' Perceptions of Education Quality from Higher Education Institutions in the GCC**

A range of varied opinions have been expressed by employers about the quality of provision from HEIs operating in the GCC countries, with some more positive than others. Many employers believe that long strides and progress have been made in the GCC higher education system, and there is consensus regarding improvements in the institutions' infrastructure and educational technology systems and tools, with some acknowledgement of improvements in academic standards (International Labour Organization, 2021; Ernst & Young, 2015). At the same time, however, there are many employers who find the curricula being taught in HEIs disconnected from industry requirements and the demands of the job market (Ernest& Young, 2015) and who, thus, lack trust in the local education providers. A study by Almesad (2017), showed explicitly this by revealing that there is a lack of sufficient confidence on the part of employers in the abilities and potential of local HEIs and training institutions. This is consistent with findings of international studies that have indicated a certain level of scepticism that employers express toward the ability of HEIs, and private/for-profit institutions in particular, to meet labour market needs (Hodgman, 2018; Darolia et al., 2014).

As for the disconnect between HEIs provision and the labour market needs, this has been elaborated on by several scholars in the literature who have found through their studies on employers in the GCC that private sector companies raise considerable concerns about the lack of skills among graduates (Mishrif et al., 2023). In a study by Belwal, Priyadarshi, and Al Fazari (2017), the skills that were highlighted as lacking include computing skills, teamwork ability, English language proficiency, and personal skills. While in another study by Hassock (2019), the identified skills included communication, work attitudes, practical skills, and lifelong learning. In the end, it is safe to conclude that the disconnect pinpointed by the employers calls for greater attention from the side of the HEIs in the GCC countries to better align their curricula with the continuously evolving labour market needs and demands.

## **Employers' Communication with Educational Institutions**

There is increasing awareness in the GCC countries of the importance of effective communication between HEIs and the industry. This awareness is partly due to the quality assurance (QA) and accreditation standards of the national QA and accreditation authorities of these countries [e.g., the National Commission for Academic Accreditation and Assessment (NCAAA) in Saudi Arabia; the Commission for Academic Accreditation (CAA) in the UAE; the Bahrain Education and Training Quality Authority (BQA); the Oman Authority for Academic Accreditation and Quality Assurance of Education (OAAA)], which the HEIs work hard to meet. There is also strong evidence across the GCC of employers' involvement as advisory board members of HEI academic programs where they advise on curriculum development and in some countries, where applicable, assist with justifying the market for higher education qualifications to be listed on the national frameworks (Lawrence, 2024). This is in addition to evidence of collaboration between HEIs and employers with respect to internship requirements and work placements (Lawrence, 2024).

Despite all these different forms of communication and interaction between employers and HEIs, there are still in most GCC countries moderate satisfaction levels when it comes to the quality and effectiveness of higher education-employer engagement (Ryan, 2023; Hassock, 2019; Jarrar, 2018). Employers in the UAE, in particular, wish for greater engagement through having a greater role in supporting apprenticeships and practical learning (Jarrar, 2018). In Saudi Arabia, as another example, there is a push for greater involvement of employers by having them collaborate, as industry experts, with the HEIs on developing precise marking rubrics for work-based learning experiences (Al-Atroush & Ibrahim, 2022). These efforts, as well as others, are in place mainly to try and help close the existing skills gap in the region, as effective communication and engagement between employers and educational institutions is key to ensuring that academic programs remain current, relevant, and responsive to labour market needs.

## **Employers' Perceptions About the Role of Higher Education Institutions in Instilling Important Skills for the GCC Workforce, Versus Their Own Role in Training Employees via Training and Development Initiatives**

Generally speaking, HEIs nowadays are expected to produce graduates with the knowledge, skills and attitudes that are needed to succeed in the workplace (Hodgman, 2018). They are, thus, entrusted with the duty of graduates' employability. Employers, as a result, view HEIs as providers of the workers they need. Internationally, employers have not only recommended the skills that

HEIs should develop in students but have also stipulated that HEIs should help students in securing internships. Meaningful work experience is perceived as an enabler of successful transition to the workplace due to its potential to develop "...employment skills, building content knowledge, and instilling an awareness of employer culture in students prior to graduating (Hart Research Associates, 2013; Lowden et al., 2011)" (Hodgman, 2018; p.97).

A thorough examination of the literature on the GCC education landscape yields more or less similar conclusions with respect to how employers perceive the role of HEIs in instilling important skills for the workforce. We can safely make this claim, despite the small number of research studies on the topic, mainly because of the consistency of their findings - in relation to the skills employers need and expect from HEIs- with the research on the international scale. As a good example from the GCC, and based on an analysis of the needs of employers from the private sector, HEIs are expected to provide students with learning management skills; teaching them how to ask the right questions; training them on how to apply and reflect on what they learn; instilling a passion for lifelong learning; and equipping them with skills perceived as important for the future (including digital literacy skills) (Jarrar, 2018).

Reflecting on these expectations, it is clear that most of them, if not all, pertain more to soft skills rather than to hard/functional skills. This is a significant observation mainly because the prevalent trend currently is to consider hard skills, especially specialised ones, as something that can be developed on the job with the right type of training, if the basic technical and content knowledge and skills are there. This is consistent with what the international research indicates in terms of employers viewing their main responsibility as that of increasing student internship opportunities and providing employees with professional on-the-job learning (Cheng et al., 2022). What this implies, thus, is that when it comes to the question of how employers perceive their own role in training employees, whether in the GCC or elsewhere, the answer simply is that they consider themselves responsible for the instilling of specialised technical skills through mentoring, training, and development initiatives, including internships and on-the-job opportunities. In the end, irrespective of how employers perceive their role or the role of HEIs when it comes to the instilling of skills in the workforce, what is critical, as Williams et al. (2019) explain, is that the expectations of employers and educators be compatible when considering skills to be developed and assessment of employment outcomes.

## **Employers' Perceptions of How Higher Education Institutions Can Reduce the Skills Gap Between Graduates and Employer Needs and Ensure Greater Availability of In-Demand Skills in the Workforce**

The scale of the skills gap in the GCC countries was established in the sections above. However, geographically, this gap is not limited to the GCC region and extends to many countries globally. This is partly because employers' priorities have shifted from a focus on university degrees and credentials to an emphasis on soft skills such as problem-solving, collaboration, communication, teamwork, and emotional empathy (Noah & Aziz, 2020), which have been proven to lead to enhanced work performance (Ahmad et al., 2019). Additionally, however, the gap is due to the transformation happening in the world of jobs due to the Industrial Revolution 4.0 technologies, which will lead to the emergence of new and different jobs as well as to a change in existing jobs, creating a "reskilling emergency" (Otermans, Aditya, & Pereira, 2023: p.137). Considering this shift in employers' priorities and the reskilling need, it is important to explore from the perspective of employers how the existing skills gap, and projected future ones to come, can be reduced through higher education.

The empirical research on this topic in the GCC is quite scarce but rich internationally and, thus, can sometimes be tapped on to uncover what measures employers most probably require HEIs to implement locally to reduce the existing skills gap.

To begin with, employers in the GCC recommend greater alignment between academic programs and labour market needs. Part of this entails continuous updating of academic curricula, programs, and strategies to remain up to date with the changing industry landscape (Al-Rashaidan & Al-Thwaini, 2021). This is in addition to HEIs ensuring that their program learning outcomes incorporate skills and attitudes valued by the employers (Al-Altroush and Ibrahim, 2022). It also involves placing more emphasis on the development of future skills critical for employment, including: analytical thinking, complex problem solving, critical thinking, innovation, creativity, people management, collaboration, negotiation, attention to detail, resilience, agility, flexibility, emotional intelligence, leadership and social influence, and service orientation (Jarrar, 2018; Hassock, 2019). This is in addition to the development of competencies in new technology designs and programming (Hassock, 2019), as well as the development of entrepreneurship, which is currently considered as key to increasing a country's competitiveness and stimulating growth (Shaikh, 2019).

In support of this, Hassock (2019) also recommends that all degree programs formally incorporate in them employability skills training and support courses, with regular assessments conducted throughout the duration of study. She also calls for greater collaboration between HEIs and employers, for there to be greater alignment between the education systems and the skills and productivity requirements of every industry sector. The collaboration she envisions consists of employers knowing more about the HEI curricula, students, and quality of educational provision, on the one hand, and the HEIs being more active in industry networks. On the same lines, Ryan (2023) urges HEIs to form strategic partnerships with businesses that provide students with meaningful and well-structured internships by exposing them to real work environments, while promoting an industry-university model based on strong cooperation. This is consistent with GCC employers' call for greater engagement between them and educational institutions to support meaningful internships and practical learning (Jarrar, 2018). Lawrence (2024), similarly, emphasises the collaboration of HEIs with the industry but also highlights the need for stronger collaboration between HEIs and TVET providers in the GCC countries.

In addition to aligning curricula, the literature on the GCC also suggest that HEIs should improve their career guidance services and to provide their students with more academic direction during their years of study, by guiding them to elective courses and curricular and extracurricular activities that meet the labour market needs (Al-Awad et al., 2020). Additionally, there is a call for HEIs to focus on more robust data collection and analysis related to employability outcomes and the tracking of labour market trends to better inform through their research findings educational planning on the national scale (Ryan, 2023). Similarly, field studies and empirical research investigations about labour market issues, problems, future professions, and prospects are encouraged (Almesad, 2021).

Finally, there is also a recommendation for HEIs to incorporate as part of their provision micro-credentials, which are "...short units of learning that focus on specific skills and are offered in a flexible and agile manner." (Ryan, 2023; p.8). Micro-credentials provide HEIs with a golden opportunity to revise their curricula in ways that make them better aligned with market needs and more fit for enhancing skills-based learning (OECD, 2021). They also "...act as a medium to upskill and reskill a labour force" (Ryan, 2023; p.8).

One of their main benefits is that they are usually designed in collaboration with industry partners and this, thus, makes them more relevant to market needs (Miller, 2024). Additionally, they are affordable and are usually offered online, which makes them more accessible to a wide range of students, irrespective of their location (Miller, 2024). This, thus, could solve the problem of lack of

access to training for students in remote areas in the GCC countries, where applicable. Although, recently, after the large investments in the technology infrastructure of HEIs in these countries, other means of providing access to training are also easily available, such as learning management systems and other types of electronic platforms.

### **Theme 3: Recruitment practices and challenges**

#### **Challenges faced by employers when recruiting graduates**

Demographic, socio-economic, political, and technological factors shape how businesses view their future workforce plans and develop their strategy. These include changes in customer demands and demographics, a changing economic and political environment, and shifting employee relationships and expectations CIPD (2016). As discussed throughout the report, a key challenge faced by employers in GCC countries when recruiting graduates is the mismatch between education and industry needs (ILO et al, 2023; Shediak and Sammam, 2010) but this is exacerbated by the desired and necessary pace of change to meet the requirements of GCC countries' visions and the general impact of technology on operations and innovation worldwide.

This review also drew on reports which discuss the higher-level ambitions of the GCC, and extrapolating potential skills needed from these. The region proved itself resilient to the challenges posed by the pandemic, with Qatar successfully hosting the FIFA World Cup 2022. All six GCC countries envision exponential growth in tourism, with KSA alone looking to attract 150 million visitors by 2030 and the UAE a further forty million, with around half a million hotel rooms to cater to this (Roland Berger, 2024). Such ambitions will require building, infrastructure, food supply, hospitality and catering, and transportation to service. In addition to the attractive strategic location and the cultural heritage of the region, sports tourism, health spas and conference facilities make up an offer which will require a skilled and knowledgeable workforce. Buckner (2022) warned that policymakers and higher education institutions need to be aware of the impact of shaping degree offers based solely on economic imperatives and skills needed by employers. Using economic reports as the main driver to shape the offer from universities can be problematic due to the risk of 'shared interests between state actors, funding agencies and intellectuals' (Buckner, 2022, p.192) which can ignore the humanities and 'critical scholarship' in a quest for 'skills'. Buckner (2022) emphasises the complex social, cultural, and political aspects of universities and urges policymakers, and by extension employers, to see that these are more than objects of intervention, and in which the problems are often misdiagnosed, resulting in ineffective

policy solutions. 'Employers, government and individuals will all have a role to play in reskilling and upskilling the existing workforce' (Alyani, 2023; p.3-4).

There is a whole body of literature highlighting the risk of increased neoliberal ideological linkages between universities and a knowledge economy narrative and the reductive impact it has already had on universities in other countries. The push to offer only degree courses which lead explicitly to employment narrows the ability of students to pursue their interests and develop employability skills whilst doing so (Zhang, 2024; Zapp, 2022; Holmwood, 2014, Altbach, 2013). The humanities and arts remain central to the development of creativity, critical thinking, presentation, teamwork, and communication skills.

### **Different sources of graduates: public, private and international universities**

There are three sources of graduates in GCC countries – public, private, and international universities. –Labour market segmentation in GCC countries between nationals and non-nationals, between the private and public sectors and between men and women have long impacted employment and labour market outcomes (ILO, 2024, p.9). Local students tend to graduate from public institutions and many favour the conditions of employment in the public sector over what is on offer in private industry. There is a preference among graduates from public universities for government jobs, owing to the status and security that generally accompany these. Graduates tend to have limited practical experience owing to the largely theoretical focus of many degree programmes, but also reject what they see as lower-status technical and vocational jobs, despite lacking the skills to be able to carry these out. Science and engineering graduates are lacking in the region, where instead there is an oversupply of social sciences graduates. In Bahrain, there are Masters degrees available in FinTech but these are limited in number and only at postgraduate level.

Private universities have expanded to meet demands not covered by public institutions, especially in professional fields like information technology, engineering, and medical sciences. However, there are concerns among employers over the quality of graduates from private universities. The apparent better responsiveness of private universities to employer needs is often limited to popular and profitable courses, neglecting broader educational needs, some of which would support the development of the transferable and employability skills employers also require. The emphasis on profit in private institutions has sometimes led to compromised academic standards, with students viewed as customers rather than learners (Buckner, 2022). This has resulted in universities and students being attracted to the 'allure of easy' (Barsoum, 2017 in Buckner, 2022

p.139), meaning that it is difficult for employers and policymakers to influence what is learned. Students are buying a degree experience rather than aiming to enter a particular sector or gain the skills demanded by employers.

Increasing regulation of private universities aims to improve educational standards and ensure the credibility of private sector qualifications, which could lead to better employment outcomes for graduates. Data up to 2013 showed that more than four thousand private university graduates studied Business and Economics, with fewer than one thousand studying Information and Technology, a figure which had decreased on the previous two years (Strategy&, 2017). The next most popular subjects were Education and Engineering.

Initially, private higher education institutions focused on vocational training, providing advanced training in management, business, and hospitality. They tend to primarily serve non-citizens, while public institutions cater to citizens. This dual-sector approach creates different employment dynamics (Buckner, 2022).

Students attending and from international universities acquire valuable technical, language proficiency and cultural adaptability skills (Umar et al 2023). However, the restrictive visa and residential policies of GCC countries make long-term employment prospects difficult. In KSA and Bahrain, students must secure immediate employment to stay in the country post-graduation. This reduces the pool of available graduates.

### **Female graduates and employees**

The status and availability of female employees, despite them making up a sizeable proportion of graduates, further narrows the talent pool (CIPD, 2016). There is significant gender segmentation in the labour market, with limited opportunities for women in fields such as engineering and manufacturing, which limits the overall pool of candidates available for certain jobs. In 2023, the picture has failed to improve significantly, as whilst women made up almost 70% of enrolments at university in Saudi Arabia, and despite the KSA government giving women the right to 'participate in the labour market without restrictions' (Alhawsawi and Jawhar, 2023, p. 404), as of 2021, only 16% of women in KSA were participating in the workforce after graduation. This is in part attributed to lasting cultural restrictions imposed by family and religion.

Many steps have been taken across the GCC to open both educational and workforce opportunities for women but there remains a lag in the number of women making up mid- and

senior management roles. A combination of a lack of female role models and entrenched attitudes has exacerbated this issue at a senior level. Reflecting earlier findings about the gap between the skills demanded by employers and those held by graduates, in their interviews with women about education and employment opportunities among Saudi women, (Alhawsawi and Jawhar, 2023) found that higher education provision in KSA is of mixed quality. One masters' graduate attributed her ability to find a job in Saudi Arabia to the nature and contents of her degree course, which she completed at an international university. The laboratory training she received enabled her to work in laboratories in KSA, which are all fully equipped to a high standard – but she did not feel she would have received an education which allowed her to work locally in this way from an in-country university ( Alhawsawi and Jawhar, 2023) Other graduates in the same study complained about the theoretical nature of their degrees, whilst others had a better experience, with a combination of theoretical and practical learning and experience.

## **The impact of skills shortages on employer recruitment processes**

### **Upskilling existing employees**

Employee resistance to change coupled with the costs of upskilling and reskilling current employees are also challenges faced by employers which are having a negative impact on business (Rao et al,2021). In small businesses in particular, the lack of good management practice and entrepreneurial skills impacts negatively on operational efficiency and decision-making processes, so it is not only recent graduates who are lacking in basic business skills (Al Mubarak and Busler, 2010). It is perhaps no surprise that employers are turning to graduates – and education to supply graduates – who already have some of the skills needed, rather than tackling these challenges in-house.

### **Recruitment strategies**

Employers across the GCC are using several strategies to address recruitment challenges. The workforce in GCC countries is evolving to recruit many more young people. Employers proactively recruit those aged 16-24 via internships and apprenticeships to build the talent pipeline, bring in new thinking on the latest technologies and because it is cost efficient to recruit in this way (CIPD, 2016). The UAE's focus on AI and technology in its nationalisation policies, such as the "Golden Visa" for skilled professionals, demonstrates how countries can attract and retain talent to drive innovation and economic growth (Mishraf et al, 2023a). The use of social media channels

to engage with customers (CIPD, 2016) has the secondary effect of attracting potential employees to find out more about an organisation.

Other approaches to addressing these issues include increased employer collaboration with education institutions to ensure that they are fulfilling future employment needs; better compensation packages and appealing work environments to compete with the more generous offer and ways of working found in the public sector; the provision of in-house training programmes, to ensure that employees have the skills demanded; the use of recruitment agencies to pre-screen candidates, ensuring where possible that candidates the skills an aptitudes to fill the role; leveraging expatriate labour to fill skills gaps where local talent is not available (Bocanet and Grassa, 2023).

### **The impact of skills shortages on productivity**

Productivity is considered a transferable skill (Van Laar et al., 2017 and Binkley et al, 2010 in Vivek and Baby, 2023) and employers see the use of technology and AI as essential to increasing productivity (Alyani, 2023; Al-Ani, 2023). The use of machine learning could improve manufacturing productivity by 20% and reduce wastage of raw materials by 4% (World Economic Forum, 2016). However, both technical and transferable skills are needed for improved productivity (ILO et al, 2023) and the obvious lack of these in the view of employers also indicates that productivity is not as good as it should be.

There is limited information in the literature reviewed on the influence of skills on the location of a business. As previous sections have discussed, employers in all GCC countries rely heavily on foreign nationals to fill skills gaps, although this can be difficult for some owing to local restrictions and employment quotas (ILA, 2024). Whilst there is a vision among GCC countries to provide well-paid, worthwhile jobs for locals, the lack of necessary skills among this group of employees has led to a decrease in productivity and increased costs, leading one author to describe the ambition as 'job creation for the sake of the employment of nationals' (Al-Ani, 2023, p.32). This situation is also having a negative impact on the ability of organisations to survive and thrive owing to the imperative of seeking skilled individuals from outside the nation or GCC region. A reliable supply of skilled local graduates and workers would allow for better strategic planning.

## Conclusions

In conclusion, there are several challenges facing employers in relation to the skills mismatch between graduates and the needs of businesses and the wider economy.

The mismatch between skills held by graduates and those needed by employers is partly to do with the fast-moving pace of change in businesses and the economy worldwide brought about by rapid development in artificial intelligence and wider technologies. Whilst responding to these is partly a problem of a lack of suitably skilled graduates in the region and a lack of training provision targeting technology skills, for example, coupled with the challenge of training to meet needs which are themselves continually evolving it is hard for employers, individuals, and education provision to keep up to date. However, it is also a source of opportunity to upskill locals, attract the best international talent and ensure that creativity and innovation remain front and centre in schools and universities, and that the importance of these to delivering future regional ambitions is communicated to potential school-leavers and graduates.

Locally, the mismatch in education content and the way in which it is taught in GCC countries limits the ability of students to develop the skills employers are seeking. There is a need to address the development of practical skills alongside the learning of theory, and this may involve changes to the way in which courses are taught and assessed. It may also involve auditing the provision of both public and private sector universities and ensuring that the degree programmes they offer, and the wider opportunities within higher education, are shaped to deliver the skills required in the GCC. However, this should not be at the price of creative and cultural degree courses, as they also develop skills required by all sectors. These could, however, be made more explicit. If employers currently have that information, understanding first-hand the benefits and shortcomings of graduates from public, private, and international institutions in a range of industries would be helpful.

Whilst there have been significant changes to address the role of women in the workforce, cultural limitations on the participation of female graduates in the work force reduces the potential pool of skilled workers, exacerbating this issue. Although some individual cultural restrictions may be unique to GCC societies, challenges facing the inclusion of women in the workforce are not unique to GCC countries (WEF, 2023). Ensuring that innovation in working practices continues to enable women to better participate in the workforce, for example, through remote jobs enabled by technology and flexible hours to accommodate familial responsibilities, will be essential to

ensuring that the maximum number of graduates can be employed. Understanding those opportunities and the current limitations on them from employers in a range of industries would be useful outcome of this research.

The focus of this research is skills development and availability among existing graduates. However, ensuring that this is current, relevant, and actively encourages the development of applied learning will require changes both to content and assessment methods, a potential overhaul of teaching and assessment cultures in higher education. The evolution of knowledge economies, far from being theoretical as they may sound, are 'production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance as well as equally rapid obsolescence' (Powell and Snellman, 2004, p.201). Employers may be turning to graduates to fill skills gaps among their own staff, but graduates are not equipped to do so either. A multi-pronged strategy is required encompassing in-house training, vocational training, and changes to higher education programmes to create a sustainable pipeline of local talent. In the meantime, students and employers would benefit from a greater alignment of higher education programs with market needs and enhanced vocational pathways (Buckner, 2022). The latter could be designed as degree level apprenticeships, a route which combines academic rigour with practical application and work readiness (Cook et al, 2024). It is not possible for Higher Education alone to supply the skills needed in the time available.

There is also a need to acknowledge and address other skills' supply channels and the ability of other levels of education, including schools, to develop some transferable and many employability skills, long before young people reach the job market. It is not feasible for higher education to address all of the skills shortages in the GCC, but understanding where the issues lie with existing graduates will help to inform wider skills-supply channels as well as shaping higher education policy.

When planning skills supply, policymakers and employers should be clear about which skills they would expect educational institutes and the individual to develop, and which they might ask for or offer as part of specialist sector training. It is unlikely that universities will be equipped to train graduates on the latest professional and technical skills in all sectors as these are continually evolving. The development of technical skills will require partnerships between employers and universities, with the former investing in equipment if necessary and contributing to teaching and training to develop the graduates they need.

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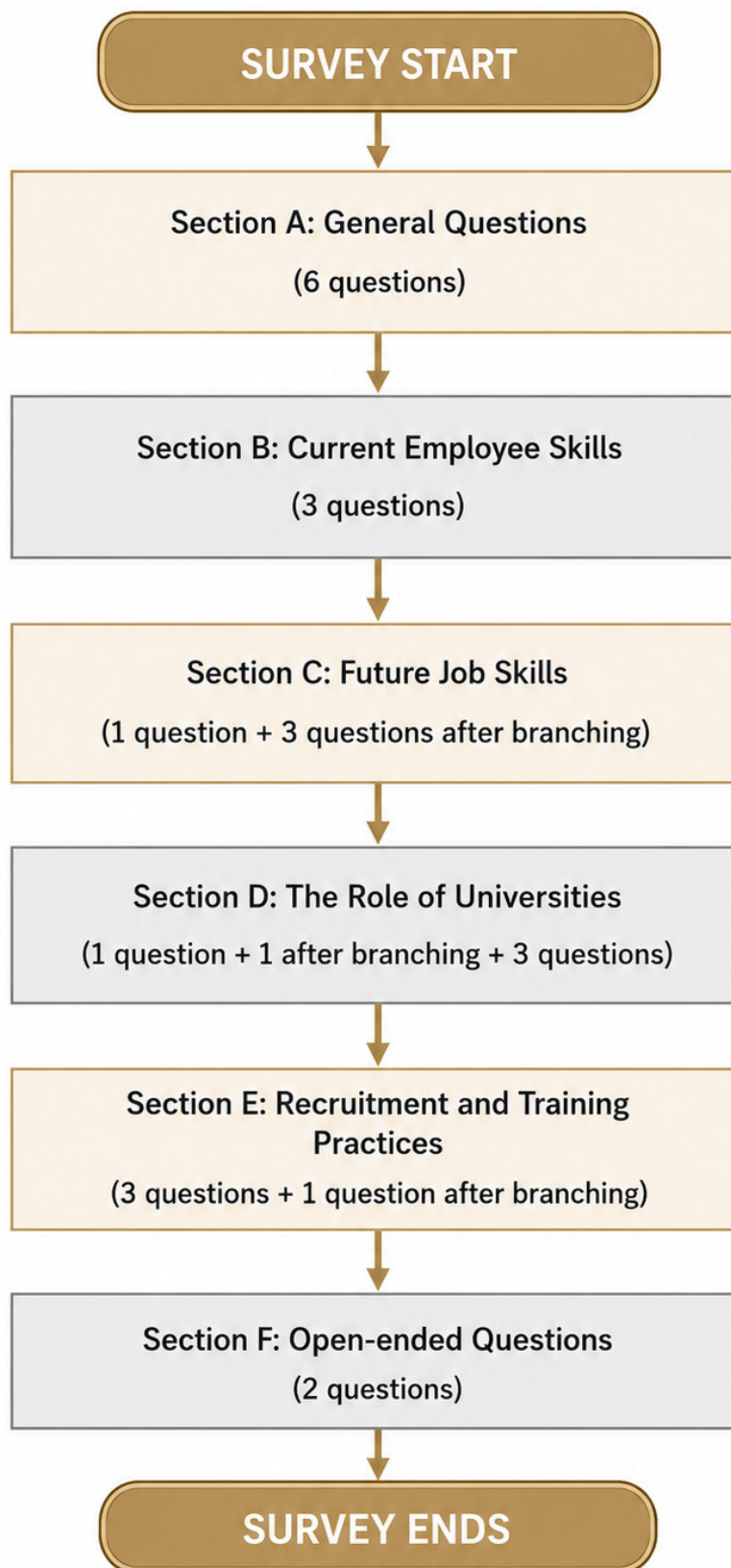
## Appendix Two - Content Validity Table

The following outlines where in which data collection instrument the research questions are being addressed.

Research Question	Literature Review	Item(s) in Survey Instrument	Item(s) in Focus Group Instrument
<b>Theme 1: Current and future skills needed in the workforce</b>			
What technical, transferable or employability skills are currently needed by employers, and are lacking among graduates?	✓	✓	✓
What is the alignment between graduates' acquired skills and the needs of the job market?	✓	✓	✓
What is the anticipated role of AI and new technological tools in the workforce?	✓	✓	
What is the impact of AI and new technological tools on existing skills?	✓	✓	
<b>Theme 2: Education and Training Provision</b>			
What are employers' perceptions of education quality from higher education institutions in the GCC?	✓	✓	✓
How do employers communicate with schools or higher education systems, if at all?	✓	✓	✓
What are employers' perceptions of the role of Higher Education Institutions in instilling important skills for the GCC workforce, versus their own role in training employees via training and development initiatives?	✓	✓	✓
What are employers' perceptions of how higher education can reduce the skills gap between graduates and employer needs, and ensure greater availability of in-demand skills in the workforce?	✓		✓
<b>Theme 3: Recruitment practices and challenges</b>			
What challenges do employers face in finding qualified candidates, and how do they address these challenges?	✓	✓	✓
How do skill gaps among graduates influence employers' recruitment processes in the GCC region and their decisions on office locations?	✓	✓	✓

Table 13: Content Validity Table

## Appendix Three - Flow Chart for Survey



# Survey Instrument for the Research Study of Employers' Perspectives on the Skills Gap Amongst GCC Graduates

September 2024

## Introduction

The job market is changing every day, and what is considered to be good talent for hire is changing also. Have you hired fresh graduates for your department recently? If so, we want to hear your thoughts on how prepared these graduates are for the job market.

The Regional Centre for Education Planning (RCEP), a category 2 UNESCO centre based in the UAE, is conducting research on the views of the GCC's private sector employers into the skills requirements for their sector. It also aims to provide recommendations from employers to education/higher education, as well as policy recommendations for skills system level development (integration of supply and demand).

We kindly ask you to fill in the survey below. All responses are confidential and cannot be traced to any individual or organisation. The responses will be used as input for a report and potential publications about employers' views on graduate skills.

For further information about RCEP please see <https://rcepunesco.ae>. For more information on this project please contact RCEP at [research@rcep-unesco.ae](mailto:research@rcep-unesco.ae) Please feel free to forward this survey to colleagues who recruit and employ graduates.

## Survey Questions

All questions are mandatory (\*) except where stated as 'optional'.

[https://igraduate.fra1.qualtrics.com/jfe/form/SV\\_00jautN5tMrzmrY](https://igraduate.fra1.qualtrics.com/jfe/form/SV_00jautN5tMrzmrY)

## Section A

### General Questions

#### 1. The location of the workplace \*

- Bahrain
- Kuwait
- Oman
- Qatar
- Saudi Arabia
- United Arab Emirates

#### 2. Type of business \*

- Private sector
- Public Sector
- Semi-government
- NGO / non-profit

#### 3. Your current role in the Organisation \*

- Employer/Company Owner/Manager or CEO
- HR Manager/Director
- Department/Unit Manager of less than 10 employees
- Department/Unit Manager of 11-50 employees
- Other
- text box

#### 4. How many years of experience you have in recruiting or managing graduates. \*

- 0-4 years
- 5-9 years
- 10 or more years

#### 5. Your main industry\*

- ICT (AI, blockchain, cybersecurity, virtual reality, networking, information systems, technical IT and communication skills, including data analytics, software development, telecommunications)
- Banking and Finance (including Fintech)
- Retail, Consumer Goods Company

- Other Support Businesses (Management, HR, Marketing, Accounting, Procurement, Sales, Real Estate, Transport and logistics)
- Education and/or Training
- Health Sciences/Medical care
- Engineering (Energy and Power, Manufacturing, Architecture, Construction)
- Media and Communication
- Other

Please define...

**6. Number of employees in your current organisation/ company \***

- Between 2 – 10 employees
- Between 11 – 49 employees
- Between 50 – 250 employees
- Over 250 employees

## Section B

### Employees' Current Skills

**7. Which of the following skills are essential to your organisation? Select all that apply.**

- English language and business writing skills
- Basic and applied numeracy
- Digital literacy and adaptability with digital tools and software
- Interpersonal and teamwork skills
- Dependability, time management and attention to details
- Critical thinking, problem-solving and creativity
- Work-related acumen and good decision-making
- Resilience
- Ethical conduct

**8. Please rate these skills among the recent graduates who joined your workplace. On a scale of 1-5, where 5 is excellent:**

- English language and business writing skills
- Basic and applied numeracy
- Digital literacy and adaptability with digital tools and software
- Interpersonal and teamwork skills
- Dependability, time management and attention to details
- Critical thinking, problem-solving and creativity
- Work-related acumen and good decision-making
- Resilience
- Ethical conduct

**9. Do you have any other comments on the skills your organization needs in graduates?**

## Section C

### Future Job Skills

**10. Considering the potential impact of innovative technologies including AI, along with the potential to automate simple, repetitive tasks, do you believe that some skills will become less important, and other skills more important?**

Yes	No
-----	----

### Branching (If they answered 'No')

**10.1 Considering the potential impact of innovative technologies, which skills do you believe will become more important?**

Please select all skills that you believe will become more important.

- English language and business writing skills
- Basic and applied numeracy
- Digital literacy and adaptability with digital tools and software
- Interpersonal and teamwork skills
- Dependability, time management and attention to details

- Critical thinking, problem-solving and creativity
- Work-related acumen and good decision-making
- Resilience
- Ethical conduct
- Other

**10.2 Considering your answer above, what additional skills (not mentioned in the list) do you believe will become more important?**

Please list a maximum of 5 skills.

**10.3 Considering the potential impact of innovative technologies, which skills do you believe will become less important?**

- English language and business writing skills
- Basic and applied numeracy
- Digital literacy and adaptability with digital tools and software
- Interpersonal and teamwork skills
- Dependability, time management and attention to details
- Critical thinking, problem-solving and creativity
- Work-related acumen and good decision-making
- Resilience
- Ethical conduct

## Section D

### The Role of Universities

**11. In your view, does the higher education system in your country prepare graduates well for the job market?**

- Yes
- No
- Partly

## Branching: If you have answered 'No' or 'Partly' to question 11,

**11.1 Please indicate which of the following you see as the main areas requiring improvement. Please select all that apply.**

- Development of soft skills
- Improvement in career services.
- Pace of adoption of technology in universities
- Alignment of curricula to labour market needs based on regular feedback from employers
- Quality of English and other language instruction
- Availability of qualified faculty with greater industry experience
- Quality of STEM teaching (Science, Technology, Engineering, and Mathematics)
- Regular input from employers into degree programmes
- Opportunities for students to apply learning to work-based problems
- Other

Please specify

## Back from Branching

**12. How does your organization currently communicate its skills' needs to higher education institutions?**

- Through curriculum advisory boards
- Participation in university events
- Direct conversations with universities
- We do not have any links with universities to give them feedback
- Other

**13. Do you have any general comments on the current skills of university graduates?**

**14. What actions would you recommend higher education institutions take to better align graduate skills with your organizational or industry needs? Please provide up to 4 suggestions maximum.**

## Section E

### Recruitment and Training Practices

**15. Please identify the top 5 fields of study or majors from which your organisation/ company recruits?**

**16. On a scale of 1 to 5, how easy is it for you to recruit suitable graduates? Where 1 is very difficult and 5 is very easy.**

1	2	3	4	5
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**17. Please tell us why you have given this rating.**

**BRANCHING: For those who have given a 1 or 2 rating in question 16**

#### **16.1 How do you deal with challenges in recruiting suitably qualified graduates?**

(Please select all that apply)

- Don't recruit/endure a resource shortfall
- Deal with skills gaps through induction and on-the-job training
- Implement schemes (internships, apprenticeships) to attract top graduates
- Partner with external training providers to develop required skills
- Expand recruitment efforts to a wider talent pool (including international candidates)
- Use recruitment agencies
- Invest in continuous professional development (CPD)

## Section F

### Other Areas

**18. Do you have any additional comments or recommendations on how graduates' skills can be better aligned with the needs of your organization or industry?**

**19. Would you be willing to participate in a focus group discussion on the same topic of this survey?**

If yes, please write your name and email below.

## Appendix Four – Survey respondents

Section A of the survey was designed to gather relevant contextual information about survey respondents. Responses are detailed below, and key points are highlighted. Overall, the survey elicited an acceptable level and breadth of response that allows confidence in the data.

### Section A: General Questions

Item 1 of the survey focused on the respondents' workplace location, and it elicited the following distribution across the six GCC countries.

Country	Count	%
Bahrain	201	28.07
Kuwait	22	3.07
Oman	29	4.05
Qatar	15	2.09
Saudi Arabia	129	18.02
United Arab Emirates	320	44.70

Based on the participants' responses, most of the employers who took part in this study were located in the UAE, with only a little less than half of the total number of participants being based in workplaces there. The Kingdom of Bahrain follows with almost one-third of the participants, and the Kingdom of Saudi Arabia coming in next with approximately (18.02%). The remaining countries, i.e., Oman, Kuwait, and Qatar were represented by relatively fewer participants with representation percentage rates below (5%). This distribution of data suggests that employers from the UAE and Bahrain constitute the main source of data in this survey. This could be explained by the fact that these two countries are where most of the research team members are based and, thus, where they happen to have a wider network of contacts that fit the profile of participants required for the survey.

Item 2 required the respondents to identify the type of sector the organizations that employ them are in, whether private, public, semi-government, non-governmental or non-profit. The responses elicited were as follows.

Type of business	Count	%
Private sector	290	64.44
Public Sector	100	22.22
Semi-government	45	10
NGO / non-profit	15	3.33

As this research study targeted employers from the private sector, the data shows that most of the survey participants (64.44%) came from businesses in the GCC countries that belong to that specific sector. Nevertheless, the data also indicates a significant but smaller presence of employers (22.22%) from the public sector compared to the private one. The remaining survey participants were spread out over semi-government organizations, with a moderate level of representation in the survey (10%), with the NGOs and non-profit organizations composing the smallest segment of participants (3.33%). Overall, this data reflects a strong representation of private sector employers, with varying degrees of involvement from employers of other sectors.

Item 3, which was about the current role that each of the respondents holds in their organization, yielded the following results.

Current role in the organisation	Count	%
Employer/ Company Owner/Manager or CEO	115	28.75
HR Manager/Director	86	21.5
Line Manager of 11-50 employees	53	13.25
Manager of less than 10 employees	75	18.75
Other	71	17.75

The statistics regarding the current roles of participants in their organizations across the GCC countries reveal a wide variety of positions. The largest segment, which consists of (28.75%), included Employers, Company Owners, Managers, or CEOs, indicating a significant representation of top-level decision-makers. HR Managers or Directors made up (21.5%) of the respondents, with Line Managers overseeing 11-50 employees accounting for (13.25%) and Managers of less than 10 personnel representing (18.75%), thus reflecting a significant presence of mid-level management positions. The “Other” category, at (17.75%), includes a long list of varied roles additional to what is specified in the list of options under the survey item (e.g., educational consultant, university

lecturer, superintendent, school nurse, etc.). These roles are too many and too diverse to easily categorize in groups. However, collectively, the vast variety of roles represented in the study a large, has helped ensure diversity of perspectives in survey responses, thus, enriching insights into the research issues under consideration.

Item 4 required from the respondents to identify the number of years they have in recruiting or managing graduates. The responses received provided the following results.

Years of experience in recruiting or managing graduates	Count	%
0-4 years	101	24.22
5-9 years	73	17.50
10 or more years	243	58.27

Survey results on years of experience in recruitment or management of graduates among the respondents indicate a high level of expertise, with more than half (58.27%) of those who responded to this item having 10 or more years of experience and (17.50%) having 5-9 years. This implies that three-quarters of the employers represent at least a mid-level of experience or higher. Relatively new professionals with only 0-4 years of experience make up (24.22%). Given these percentages, it appears that a significant number of respondents had sufficient experience to effectively contribute to the discussion of the skills gaps in the GCC region.

Item 5 focused on the industry type of the organizations the respondents are employed in and yielded the following responses.

Main industry	Count	%
ICT (AI, blockchain, cybersecurity, virtual reality, networking, information systems, Technical IT and communication skills, including data analytics, software development, telecommunications)	34	8.37
Banking and Finance	33	8.13
Retail and Consumer Goods Company	22	5.42

Main industry	Count	%
Other Support Businesses (Management, HR, Marketing, Accounting, Procurement, Sales, Real Estate, Transport and logistics)	51	12.56
Education and/or Training	148	36.45
Health Sciences / Medical care	27	6.65
Engineering, Energy, Construction	42	10.34
Media and Communication	11	2.70
Hospitality and Tourism	14	3.44
Other	24	5.91%
	406	

The data gathered on the main industries that the respondents are employed in indicate diverse types, including Education and/or Training as the largest group, at (36.45%), followed by Other Support Businesses, encompassing fields such as Management, HR, Marketing, Accounting, Procurement, Sales, Real Estate, and Transport and Logistics, at (12.56%). The ICT sector, comprising types like AI, blockchain, cybersecurity, and data analytics, along with Banking and Finance, each make up about (8%) of the respondents' industries.

Engineering, Energy, and Construction make up (10.34%), reflecting the prominence of these industries as employers in the region. Health Sciences and Medical Care make up 6.65%, while Retail and Consumer Goods make up (5.42%). Media and Communications, and Hospitality and Tourism are both at approximately (3%), indicating relatively minor but not inconsiderable sectors as employers.

The "Other" category, at (6%), suggests a variety of additional industries not specified in the list of options under the survey item, such as law, automotive services, sports, agriculture, and many others. Overall, the statistics for this item reflect a wide range of industries encompassed within the study, with a dominant prevalence of education and support services.

Item 6 concerned the size of the organization of each of the respondents. The size is determined by the number of employees in the organization. The responses received provided the following results.

Number of employees in current organisation/ company	Count	%
Between 2 – 10	69	17.12
Between 11 – 49	66	16.38
Between 50 – 250	104	25.80
Over 250	164	40.70
	403	

Responses to this item regarding the number of employees in respondents' organizations indicate a significant representation (40.70%) of large enterprises (with 250 employees or more) among the survey respondents, along with medium-sized businesses of 50-250 employees (at 25.80%). Additionally, however, there is a considerable representation of smaller organizations, whether those with 11-49 employees (16.38%) or those with 2-10 employees (17.12%). Again, this variation in organizations' sizes leads to diverse perspectives, which serve as a source enriching insight into the research study's topic under consideration and into other relevant issues.

## Appendix Five - Focus group topic guide

المركز الإقليمي للتخطيط التربوي - بحوث التعليم ودراسة السياسات  
دراسة حول وجهات نظر أصحاب العمل حول الفجوات في مهارات خريجي دول مجلس التعاون الخليجي  
ملخص موجز للمشاركين

### Regional Centre for Educational Planning - Education Research and Policy Studies

#### Study on Employers' Perspectives on Skills Gaps of GCC Graduates

##### Briefing for participants

Introduction and background	مقدمة
<p>Thank you to all representatives of employers who have agreed to give their time to help ETIO, on behalf of the Regional Centre for Education Planning (RCEP), to complete research on <i>Employers' Perspectives on the Skills Gap Amongst GCC Graduates</i>. We are grateful that you have agreed to give your time to help with this research. This briefing provides some background information for our meetings.</p> <p>The job market is changing every day, and what is considered to be good talent for hire is changing also. The Regional Centre for Education Planning (RCEP), a category 2 UNESCO centre based in the UAE, is conducting research on the views of the GCC's private sector employers into the skills requirements for their sector. It also aims to provide recommendations from employers to education/higher education, as well as policy recommendations for skills system level development (integration of supply and demand).</p> <p>We have already completed a literature review and carried out a survey of private sector employers in GCC countries. The current phase of the research aims to gather in-depth data from employers who have recently employed graduates. It will use a focus group methodology to explore employers' thoughts on how prepared these graduates are for the job market.</p>	<p>شكرا لجميع ممثلي أرباب العمل الذين وافقوا على منح وقتهم لمساعدة المركز الإقليمي لتخطيط التعليم (RCEP)، على إكمال البحث حول وجهات نظر أرباب العمل حول فجوة المهارات بين خريجي دول مجلس التعاون الخليجي. نحن ممتنون لقبول المشاركة في هذا البحث. ويوفر هذا الملخص الموجز بعض المعلومات الأساسية لاجتماعاتنا</p> <p>يتغير سوق العمل كل يوم ويتغير معه مفهوم الجدارة التي تؤدي إلى التوظيف. يجري المركز الإقليمي لتخطيط التعليم، وهو مركز تابع لليونسكو من الفئة 2 ومقره دولة الإمارات العربية المتحدة، أبحاثا حول آراء أرباب العمل في القطاع الخاص في دول مجلس التعاون الخليجي حول المهارات المطلوبة لقطاعهم. كما يهدف إلى تقديم توصيات من أرباب العمل إلى قطاع التعليم/ التعليم العالي، بالإضافة إلى التوصيات ذات الصلة بوضع السياسات العامة لرفع مستوى نظام تطوير المهارات (تكامل العرض والطلب)</p> <p>لقد أكملنا بالفعل مراجعة الأدبيات ذات الصلة وأجرينا مسحا لأرباب العمل من القطاع الخاص في دول مجلس التعاون الخليجي. تهدف المرحلة الحالية من البحث إلى جمع بيانات متعمقة من أرباب العمل الذين قاموا بتوظيف الخريجين مؤخرا. ستستخدم منهجية مجموعات التركيز لاستكشاف آراء أرباب العمل حول مدى استعداد هؤلاء الخريجين لسوق العمل</p>

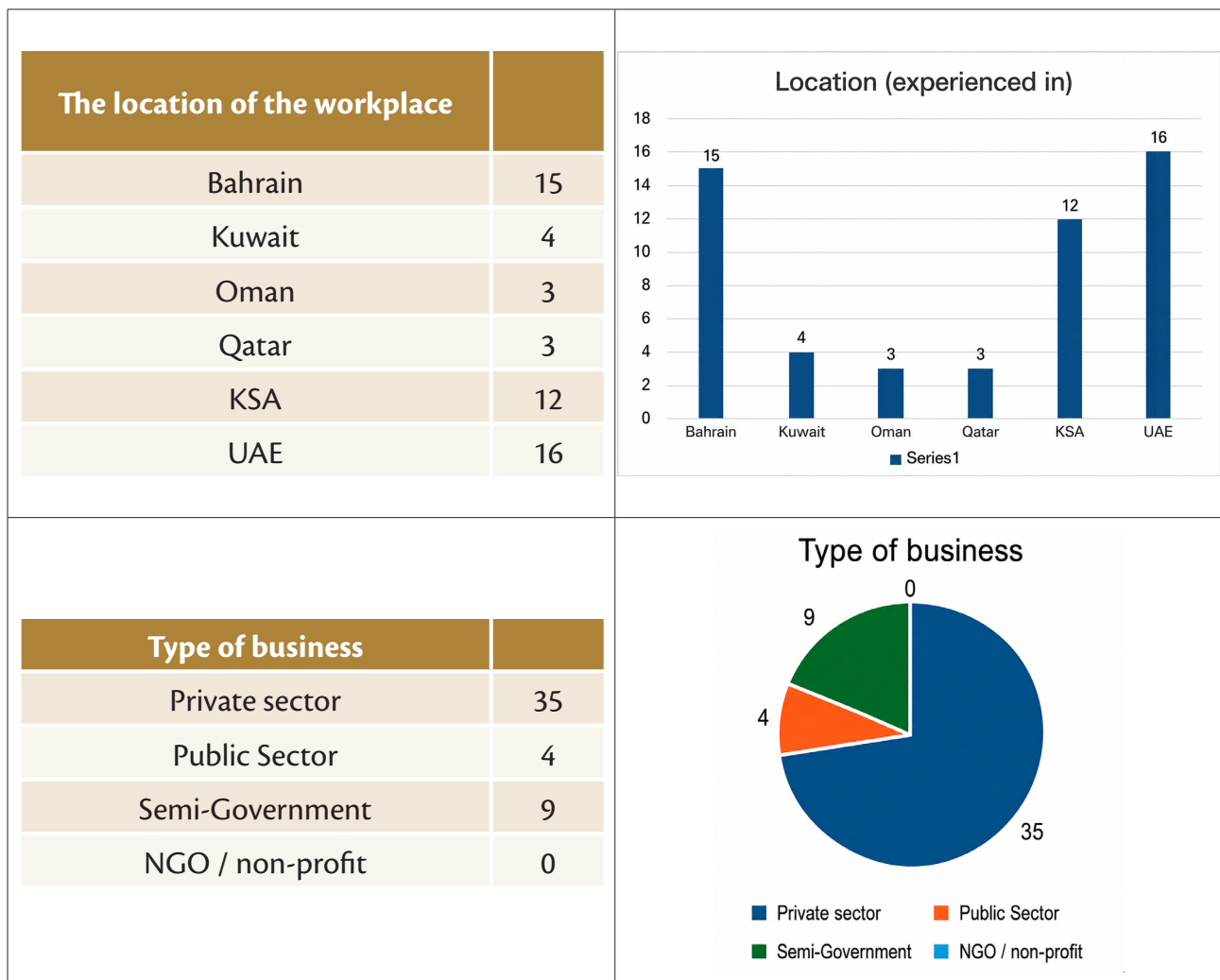
<p>In particular, this phase of research aims to explore the following issues:</p> <ul style="list-style-type: none"> <li>• the current ability of higher education institutions to supply the skills that GCC private sector employers need in graduates that they recruit, and</li> <li>• the impact of this on the ability of employers to recruit skilled labour and the impact on recruitment practices and productivity where they cannot.</li> </ul>	<p>على وجه الخصوص، تهدف هذه المرحلة من البحث إلى استكشاف القضايا التالية:</p> <ul style="list-style-type: none"> <li>• القدرة الحالية لمؤسسات التعليم العالي على تزويد خريجهم بالمهارات التي يحتاجها أرباب عمل القطاع الخاص في دول مجلس التعاون الخليجي عند توظيفهم.</li> <li>• تأثير ذلك على قدرة أرباب العمل على توظيف العمالة الماهرة وتأثيره على ممارسات التوظيف والإنتاجية حيثما لا يستطيعون ذلك.</li> </ul>
<p>The senior researchers involved in this project will meet groups of employer representatives to discuss their views on these issues. These meetings will take place virtually and a transcription of the virtual meeting will be made. This transcription will be made available only to the research team for the purpose of collating, analysing and evaluating employer views. All individual viewpoints expressed will remain confidential and will not be traceable to any individual or organisation. Analyses, summaries and extracts from responses will be anonymised and used as input for a report and potential publications about employers' views on graduate skills.</p> <p>For further information about RCEP please see <a href="https://rcepunesco.ae">https://rcepunesco.ae</a>. For more information on this project please contact RCEP at <a href="mailto:research@rcepunesco.ae">research@rcepunesco.ae</a></p>	<p>سيجتمع كبار الباحثين المشاركين في هذا المشروع مع مجموعات من ممثلي أرباب العمل لمناقشة وجهات نظرهم حول هذه القضايا. ستعقد هذه الاجتماعات افتراضيا وسيتم توثيق ما يرد فيها. ستتوفر النسخ الموثقة فقط لفريق البحث لغرض جمع وتحليل وتقييم آراء صاحب العمل. ستظل جميع وجهات النظر الفردية المعبر عنها سرية ولن يمكن تتبعها إلى أي فرد أو منظمة. سيتم إخفاء التحليلات والملخصات والمقتطفات من الردود واستخدامها كمدخلات لتقرير ومنشورات محتملة حول آراء أرباب العمل حول مهارات الخريجين</p> <p>لمزيد من المعلومات حول RCEP ، يرجى الاطلاع على <a href="https://rcepunesco.ae">https://rcepunesco.ae</a> . لمزيد من المعلومات حول هذا المشروع، يرجى الاتصال ب RCEP على <a href="mailto:research@rcepunesco.ae">research@rcepunesco.ae</a></p>
<p><b>The focus group phase of our research</b></p>	<p><b>مرحلة مجموعات التركيز (Focus Groups) في بحثنا</b></p>
<p>On behalf of RCEP, ETIO Global is bringing together groups of between 6 – 12 employers from GCC countries. Where possible, focus groups will be country-specific, but in some instances, mixed country groups will be necessary. Focus groups will be made up of representatives from different industries and different sized companies.</p> <p>The focus groups will allow researchers to engage employers in in-depth discussion of the research themes. The focus groups will take the form of a conversation between the researcher and the focus group participants.</p>	<p>نيابة عن RCEP، ستشكل ETIO مجموعات يثوية تتكون كل واحدة منها من 6 إلى 12 مشارك من ممثلي أرباب عمل القطاع الخاص في دول مجلس التعاون الخليجي. وحيثما أمكن، ستكون المجموعات خاصة بكل بلد، ولكن في بعض الحالات الضرورية، ستجمع المجموعات بين أكثر من بلد. وفي كل الحالات ستألف مجموعات التركيز من ممثلين من مختلف الصناعات والشركات ذات الأحجام المختلفة</p> <p>ستمنح مجموعات التركيز الباحثين الفرصة لإشراك أرباب العمل في مناقشة متعمقة لموضوعات البحث. ستأخذ مجموعات التركيز شكل محادثة بين الباحث والمشاركين في كل مجموعة التركيز.</p>

The discussion: topics to be covered	المناقشة: المواضيع التي سيتم تغطيتها
<p>Researchers will open discussion by ensuring that all participants are comfortable with the issues to be explored, and how responses will be recorded, analysed and shared.</p> <p>Participants will be asked to introduce themselves to the group, outlining their industry, the size and type of business, and their position within it.</p>	<p>سيبدأ الباحثون النقاش من خلال التأكد من أن جميع المشاركين مرتاحون للقضايا التي سيتم البحث فيها، مع شرح كيف سيتم تسجيل الردود وتحليلها ومشاركتها.</p> <p>سيطلب من المشاركين تقديم أنفسهم للمجموعة، وتحديد تخصصهم، وحجم ونوع أماكن العمل، وموقعهم داخلها</p>
<p>Researchers will discuss the themes outlined below with the participants. Where a group has a particular interest or knowledge of one question or set of questions, then the group may spend more time on that area, and it may not be necessary for the group to answer all questions.</p>	<p>سيناقش الباحثون مع المشاركين الموضوعات المحددة في الجزء التالي. عندما يكون لدى المجموعة اهتمام أو معرفة معينة بسؤال واحد أو مجموعة من الأسئلة، فقد تقضي المجموعة المزيد من الوقت في هذا المجال وقد لا يكون من الضروري للمجموعة الإجابة على جميع الأسئلة</p>
Theme: Your current and future skills needs	الموضوع: احتياجاتك من المهارات الحالية والمستقبلية
<p>In relation to the private sector in GCC countries: We hear a lot about soft, transferable or 'employability' skills, and some of you have mentioned some of these in your response to our survey. If you had to highlight one of these that you feel is lacking in graduates, which would it be, and why?</p>	<p>فيما يتعلق بالقطاع الخاص في دول مجلس التعاون الخليجي:</p> <p>نسمع الكثير عن المهارات الناعمة/الشخصية أو عن تلك القابلة للتحويل/التأقلم والتي أحيانا تنعت ب "قابلية التوظيف"، وقد ذكر البعض منكم بعضا منها في ردودكم على استطلاعنا. إن كنت ستسلط الضوء على أحد منها التي تشعر أن الخريجين يفتقرون لها، فما التي ستكون، ولماذا؟</p>
Theme: Your views on education and training provision	الموضوع: آرائك حول توفر التعليم والتدريب
<p>In this section of our focus group discussions, researchers will discuss some or all of the following questions with participants. The purpose of these questions is to explore the context in which employers recruit graduates.</p>	<p>في هذا الجزء من مناقشات مجموعات التركيز الخاصة بنا، سيناقش الباحثون بعض أو كل الأسئلة التالية مع المشاركين. الغرض من هذه الأسئلة هو استكشاف السياق الذي يتم فيه توظيف الخريجين من قبل أرباب العمل</p>

<p><b>Responsibility for developing training programmes</b></p> <p>What do you perceive to be the role of higher education institutions in instilling important skills for the workforce, and what do you see as your own role in training your employees?</p> <p>What actions do you think higher education institutes can take to ensure in-demand skills are more available in the workforce? What actions do you think you, as employers, can take to ensure in-demand skills are more available in the workforce?</p>	<p>مسؤولية تطوير البرامج التدريبية</p> <p>ما هو دور مؤسسات التعليم العالي في غرس مهارات مهمة للقوى العاملة، وما هو دورك في تدريب موظفيك؟ ما هي الإجراءات التي تعتقد أن مؤسسات التعليم العالي يمكن أن تتخذها لضمان توفر بشكل أكبر المهارات المطلوبة في القوى العاملة؟ وماذا عن الإجراءات التي يمكنك أنت كمدير أو صاحب عمل، اتخاذها في هذا الخصوص؟</p>
<p><b>Type of training programme needed</b></p> <p>Which do you find more useful to your needs: training of potential employees during their internship, on the job training, or outsourced/external training opportunities, and why?</p>	<p>نوع البرنامج التدريبي المطلوب</p> <p>ما الذي تجده أكثر فائدة لاحتياجاتك: تدريب الموظفين المحتملين أثناء تدريبهم، أو التدريب على رأس العمل، أو الاستعانة بمدربين من خارج المؤسسة أو فرص إرسال المتدربين إلى جهات خارجية؟ ولماذا؟</p>
<p><b>Emerging changes in graduate skills</b></p> <p>Are there any particular emerging patterns/trends that you as employers have noticed when training recent higher education graduates (i.e., in the last three years)?</p>	<p>التغيرات النامية في مهارات الخريجين</p> <p>هل هناك أي أنماط / اتجاهات نامية معينة لاحظتها كمدير أو رب عمل عند تدريب خريجي التعليم العالي الجدد (أي في السنوات الثلاث الماضية)؟</p>
<p><b>Accessibility of training provision</b></p> <p>In terms of location, how accessible (e.g., in person, online, only in major cities etc) is skills training provision to those who need it in each of the GCC countries? Are there barriers that prevent people accessing training, and if so, what are they?</p>	<p>إمكانية توفير التدريب</p> <p>من حيث الموقع، ما مدى سهولة الوصول إلى التدريب على المهارات (على سبيل المثال، شخصياً، عبر الإنترنت، فقط في المدن الكبرى وما إلى ذلك) لأولئك الذين يحتاجون إليه في كل دولة من دول مجلس التعاون الخليجي؟ هل هناك عوائق تمنع الناس من الحصول على التدريب، وإذا كان الأمر كذلك، فما هي؟</p>
<p><b>Theme: Your recruitment practices and challenges</b></p> <p>Researchers will discuss some or all of the following questions with focus group participants.</p> <p>What challenges do you face in finding graduates who are suitably qualified and how do you address these challenges?</p>	<p><b>الموضوع: ممارسات التوظيف والتحديات التي تواجهها</b></p> <p>سيناقش الباحثون بعض أو كل الأسئلة التالية مع المشاركين في مجموعة التركيز.</p> <p>ما هي التحديات التي تواجهها في العثور على خريجين مؤهلين بشكل مناسب وكيف تتعامل مع هذه التحديات؟</p>

Conclusion: summing up our discussion	الخلاصة: تلخيص مناقشتنا
<p>To conclude our discussions, researchers will ask focus group participants to suggest recommendations for action:</p> <p>Overall, what are your recommendations for HEIs on reducing the skills gap between actual graduate skills and employer needs?</p>	<p>لاختتام مناقشاتنا، سيطلب الباحثون من المشاركين في مجموعة التركيز اقتراح توصيات عملية:</p> <p>بشكل عام، ما هي توصياتك لمؤسسات التعليم العالي بشأن تقليل فجوة المهارات بين مهارات الخريجين الفعلية واحتياجات أرباب العمل؟</p>

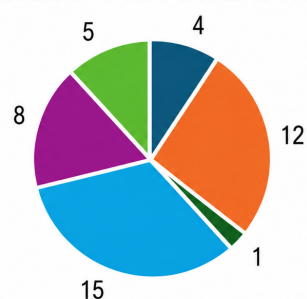
## Appendix Six – Focus group participants



Your current role in the Organisation	
Department/Unit Manager of less than 10 employees	4
Department/Unit Manager of 11-50 employees	12
Department/Unit Manager of over 50 employees	1
Employer/Company Owner/Managing Director or CEO	15
HR Manager/Director	8
Other: HE Lecturer / Trainer / Consultant / Freelancer	5

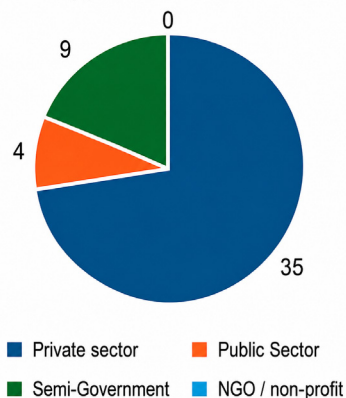
### Your current role in the Organisation

- Department/Unit Manager of less than 10 employees
- Department/Unit Manager of 11-50 employees
- Department/Unit Manager of over 50 employees
- Employer/Company Owner/Managing Director or CEO
- HR Manager/Director
- Other: HE Lecturer / Trainer / Consultant / Freelancer



Type of business	
Private sector	35
Public Sector	4
Semi-Government	9
NGO / non-profit	0

### Type of business

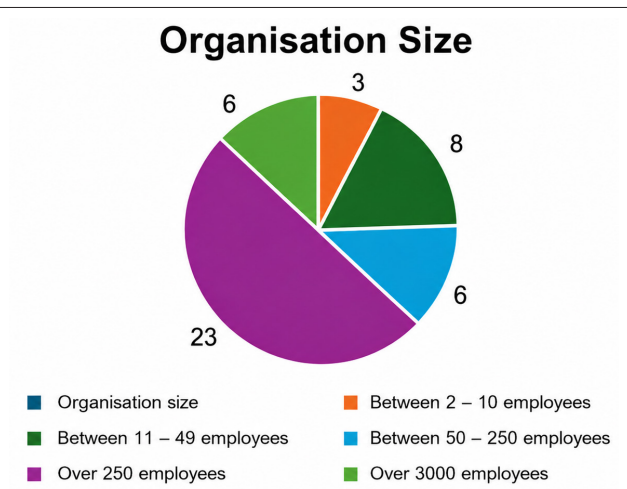


years of experience in recruiting or managing graduates.	
5-10 Years Exp.	1
10-15 Years Exp.	11
15-20 Years Exp.	7
Over 20 Years	26
40 Years +	1

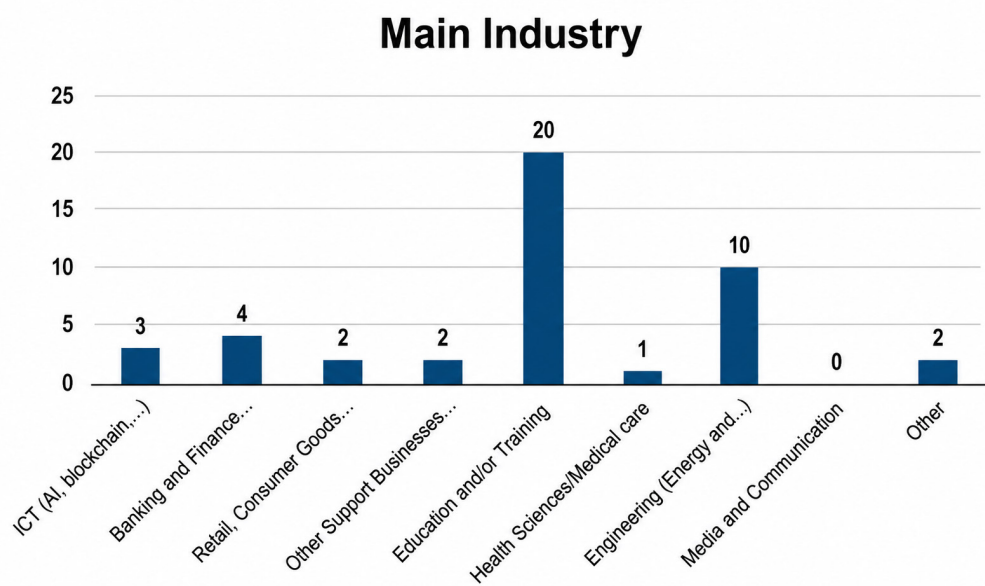
### years of experience in recruiting or managing graduates.



Organisation size	
Between 2 – 10 employees	3
Between 11 – 49 employees	8
Between 50 – 250 employees	6
Over 250 employees	23
Over 3000 employees	6



Your main industry	
ICT (AI, blockchain, cybersecurity, virtual reality, networking, information systems, technical IT and communication skills, including data analytics, software development, telecommunications)	3
Banking and Finance (including Fintech)	4
Retail, Consumer Goods Company	2
Other Support Businesses (Management, HR, Marketing, Accounting, Procurement, Sales, Real Estate, Transport and logistics)	2
Education and/or Training	20
Health Sciences/Medical care	1
Engineering (Energy and Power, Manufacturing, Architecture, Construction)	10
Media and Communication	0
Other	2



## Appendix Seven – Qualitative Data Coding for focus groups and open-ended survey questions

Theme	Key words	Description
<b>Current and future skills needs</b>		
Timekeeping and time management	As theme	Ability to turn up for work on time, ready to work, and to complete work to given deadlines. Linked to understanding the implications for others and the employer.
Self-motivation	Passion Drive Sense of purpose	Vision to see the contribution that one's own work can make.
Work ethic	Accountability Responsibility Focus	
Ability to understand and cope with challenges of the workplace	Resilience Emotional intelligence Self-regulation	Linked to personal resilience, and also to ability to understand problems and to keep going. Explicitly linked to understanding of workplace roles and responsibilities and ability to cope with change.  Lack of: described as giving up, wish to quit the job.
Multicultural understanding	Culture Multicultural	In the Middle East many workplaces are multicultural, and workers need to understand other cultures in order to be able to work together and communicate
Soft skills must be integrated	Soft skills are related Integrated Part of professional skills	Soft skills are inter-related and cannot be developed separately. They should be developed as part of professional learning.

Theme	Key words	Description
Personal learning and thinking skills	Creativity Critical thinking Decision-making Analytical skills	Ability to think for oneself to come up with solutions to problems.
Communication	Presentation Discussion	Skills to present complex issues to customers. Not just speaking but listening and asking questions. Also encompasses written communication skills, and the ability to communicate in a professional manner. Social intelligence to understand others.
Teamwork	Collaboration	Ability to work with others, especially to solve workplace problems.
Problem solving	As theme	Breaking down a problem into component parts, seeking solutions, reworking
English language skills	Language English	Needed for communication within the country. and with other countries. Also needed to understand safety procedures in the energy industry.
IT user skills	Digital skills Software skills Excel Industry-specific software	Ability to use industry-specific software. To use general and tailored software.
Data analytics	Data analysis	Ability to use software to understand business data.
Ability to apply knowledge in practical situations	Application of knowledge Application of theory	An understanding of how concepts, tools and ideas learned theoretically might be applied in the workplace.

Theme	Key words	Description
<b>Education and Training Provision</b>		
Internship	Internships	The employer role is seen as one of providing internships.
Industry links	Build industry links	Need to build closer links between education and employers
Curriculum	Change curriculum	The curriculum needs to be changed/ updated/ made more practical. Needs to take account of employer/market needs, current and future.
Professional certification	Certification Qualifications Professional bodies	HE could offer professional certificates, with ongoing involvement of employers and relevant professional bodies.
Committees or meetings	Regular meetings Formal liaison committees Advisory Board	There must be meetings between HE and employers, regular and working at a level of detail.
Jointly designed projects	Real life projects Employer-set projects Industrial projects	Provide opportunities for students to tackle real life problems/ projects, either in work placements, or as a research exercise set by employers.
In-company training	On the job Hands-on Manager Training programme	In-company training provided in a variety of ways, with varying degrees of formality.
External training	Outsourced	Outsourcing is felt to bring a number of benefits.

Theme	Key words	Description
<b>Recruitment practices and challenges</b>		
Availability of qualified graduates	Relevant degrees. Experience as a proxy for skill Turnover Expectations Quality	Graduates expect high salaries and have unrealistic expectations of work and working hours.  Graduates may not work to the quality expected, and even if trained, may move on quickly.
Employers provide training themselves	On the job training	Using up working time and creating costs for employers.
Not appropriate to national context	Not matched to needs	Training is available but is not matched to local or national industry needs, or in an accessible language for the trainees

## Annex

### Illustrative Best Practice: The Abdulla Al Ghurair Foundation Learning-to-Earning Model

The Abdulla Al Ghurair Foundation (AGF) is the largest privately funded philanthropic foundation in the Arab region dedicated to education. Established in 2015, AGF empowers Emirati and Arab youth through transformative learning opportunities, enabling them to shape their future and uplift their communities. Operating across school-age learning, higher education, and workforce readiness, AGF has reached over 431,000 beneficiaries through 85 programs, working across seven Emirates, seven countries, and in partnership with 160+ institutions.

AGF has developed a **Learning-to-Earning (L2E) model** that serves as a comprehensive framework for connecting education, skills development, and employment outcomes. Rather than a single program or platform, the L2E model is a coordinated ecosystem that brings together employers, education providers, government entities, youth and ecosystem partners to collectively identify workforce needs, design market-relevant learning pathways, and support successful transitions into employment and entrepreneurship.

At its core, the model operates through three interconnected components:

- **Demand-led intelligence:** continuous assessment of labor market trends, employer demand, emerging occupations, and future skills requirements.
- **Market-aligned Learning Pathways:** co-designed training and upskilling programs that combine technical, employability, and industry-specific skills.
- **Transition-to-Employment Mechanisms:** Career guidance, internships, career fairs, and other interventions that facilitate positive career outcomes. Through this integrated approach, the model creates a direct connection between labor market demand and talent development, ensuring that learning investments translate into tangible employment, entrepreneurship, career progression, and further education outcomes.

A defining feature of the model is its **multi-stakeholder architecture**. AGF acts as a system-enabler and strategic convener, coordinating stakeholders across the talent ecosystem. Employers contribute industry expertise, identify skills requirements, participate in program design, and create pathways into employment. Government partners support policy alignment, workforce planning, and scale. Ecosystem partners contribute specialized expertise, implementation support, and sector knowledge. As of early 2026, the L2E model is organized around five priority tracks responsive to evolving economic opportunities and workforce needs:

- **Digital Track:** focused on AI, generative AI, digital skills, data, and emerging technologies.
- **Green Track:** focused on sustainability, climate, and green economy- related skills.
- **Creative & Media Track:** focused on storytelling, digital content, media production, and creative industries.
- **Employability & Career Readiness Track:** focused on workplace readiness, functional skills, and smoother transitions into employment.
- **Entrepreneurship Track:** focused on innovation, business creation, and enabling youth-led ventures and freelance pathways.

To operationalize the model at scale, AGF launched Massar Al Ghurair in 2025. Massar Al Ghurair is the digital infrastructure that powers the Learning-to-Earning ecosystem. It enables learners, employers, educators, and ecosystem partners to engage within a shared talent development environment while leveraging real-time labor market intelligence, skills mapping, personalized learning recommendations, and skills-based job matching.

Within the broader L2E architecture, Massar Al Ghurair serves as the mechanism through which labor market insights are translated into actionable pathways for learners and employers. The platform extends support beyond individual training programs by helping users identify skills gaps, discover relevant learning opportunities, understand emerging labor market trends, and access employment opportunities aligned with their capabilities and aspirations. In doing so, it enables continuous and adaptive learning-to-earning journeys that remain responsive to changing workforce demands.

As part of the initial roll out of Massar Al Ghurair, AGF delivered career readiness workshops directly to Higher Colleges of Technology (HCT), bringing employer-aligned training directly into higher-education. Building on early demand and engagement, AGF has since scaled delivery of its career readiness offerings, enabling broader reach, more structured implementation, and sustained student engagement across multiple HCT campuses including, Abu Dhabi, Dubai, Ras Al Khaimah, Fujairah, Al Ain.

To date, AGF has delivered more than 50 workshops and trained over 1,200 HCT students in CV writing, personal branding, business etiquette and other employability skills. Workshops are facilitated directly in classrooms to better integrate employability learning within the student experience and ensure strong student engagement.

The AGF L2E model thus offers a powerful, tested example of how to operationalize the core

recommendations of this report, moving beyond diagnosing skills gaps to providing a scalable system for closing them. The table below summarizes this alignment.

Key Challenge from Main Report	How AGF's L2E Model Provides a Solution
Curricula misaligned with market needs	<b>Demand-Led Intelligence:</b> Pathways are built on real-time labor market diagnostics about present and future upskilling needs and talent.
Graduates lack practical, hands-on skills	<b>Certified Market Pathways:</b> Focused, industry-recognized intensive training (1-6 months) with practical employer engagements.
Weak communication & collaboration between higher education and employers	<b>Co-Designed Programs:</b> Employers engaged from scoping to hiring; continuous feedback loops between learning and labor market need.
Narrow view of graduate « success »	<b>Dignified Employment Framework:</b> Recognizes full-time work, freelancing, gigs, paid internships (>6 months), and further education as outcomes.
Employers bear high costs for training & productivity loss	<b>Catalytic Co-Investment Model:</b> AGF provides catalytic philanthropic funding while employers, education institutions, government entities, and ecosystem partners contribute expertise, infrastructure, implementation support. This creates a sustainable and shared mechanism for delivering market-aligned upskilling solutions.

In summary, the AGF L2E model demonstrates how integrating demand-based planning, targeted and practical training, technology-enabled skills matching, and shared accountability ensures that upskilling remains responsive. As a system-enabler, AGF implements this model by drawing from the expertise of diverse stakeholders, including youth, to collectively identify skills gaps, co-design market-aligned pathways, and deliver training at scale. This serves as an illustrative best practice for policymakers, higher education institutions, and employers seeking to bridge the skills gap and unlock the potential of Arab youth.



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