Female Participation in Technical and Vocational Education and Training (TVET): Lessons from the Gulf States (GCC)

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NB: This presentation draws on a UNESCO research study led by Faryal Khan with Walid Aradi, Elizabeth Buckner, and Wesley Schwalje comprising the research team.
• Part I: TVET within SDG 4 Framework for Action

• Part II: Findings from UNESCO Research focusing on Lessons from the Gulf States

• Part III: Implications for Future Research
I. Sustainable Development

Goal 4

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Outcome Targets [7]

4.1 Quality primary/secondary education for all
4.2 Early childhood & pre-primary education
4.3 Equal access to TVET & higher education
4.4 Relevant skills for work
4.5 Gender equality & equal access for all
4.6 Youth and adult literacy
4.7 Global citizenship education for sustainability

Means of implementation [3]

4.a Safe & inclusive learning environments
4.b Scholarships for higher education
4.c Teachers’ training and working conditions
II. UNESCO study explores policy, systemic, and socio-cultural barriers to female Technical Vocational Education and Training (TVET) enrollment and employment

- Females make up the majority of enrollments in academic forms of higher education
- Educational reforms have been accompanied by social and labor market policies aimed at ensuring women are trained in emerging technical fields and able to fully participate in the labor market
- A recurring theme in development strategies is female employment in emerging technical fields expected to grow as a result of knowledge-based economic transitions
- TVET has not been a significant focus of reform
- Females less likely to pursue TVET than men
- Labor force participation amongst GCC females remains low and women are typically segmented in select occupations in government, education, and social work
- Emerging industries which have fueled recent growth and job creation are male dominated fields which tend to employ large quantities of low wage, foreign workers

Empirical Gaps
- Much of the previous research has examined why men are less likely to continue on to higher education
- Lack of research that has examined why females tend to pursue academic education over TVET
- Scarcity of research on the factors that shape women’s labor market decisions
- Little research on what changes may be needed to encourage employers to hire women
Though there is a lack of a clear conceptualization of what constitutes TVET in the GCC; this study includes a variety of institutions:

<table>
<thead>
<tr>
<th>Formal TVET institutions</th>
<th>Government Training Centers</th>
<th>Private, Company, and Semi-gov. centers</th>
<th>Entrepreneurship centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally focused on boys, all GCC countries offer formal secondary TVET pathways at the upper secondary level</td>
<td>Provide training within government ministries and organizations</td>
<td>Offer TVET courses either on behalf of a company as part of employee training or are entities which provide specialized training to boost the skills of individuals without offering a formal degree</td>
<td>Social development centers in the GCC help at risk women through employment training</td>
</tr>
<tr>
<td>Accredited, degree-granting, post-secondary schools and universities which provide TVET to both male and female students</td>
<td>Provide training courses to government employees specific to their needs</td>
<td></td>
<td>Entrepreneurship training centers promote the development of business skills by offering business training while providing incubation assistance</td>
</tr>
</tbody>
</table>
This study builds on the findings of previous comprehensive national reports on TVET conducted in Oman, Qatar, and Saudi Arabia from 2010 to 2013.

Information collected from desk research and key informant interviews from previous reports was synthesized to shape the conclusions and recommendations contained within this study; The research methodology also included a comprehensive review of English and Arabic.

- Publicly available reports
- White papers
- Journal articles
- Books
- Theses
- News items
While this study includes primary data from governance bodies, administrators, and educators, other key stakeholders were not included.

Conceptual and instrument development

1. Desk Research
   - Define conceptual framework for survey protocol and instruments
   - Draft survey instruments

2. Validation of Framework and Protocols by Key Stakeholders
   - External validation of conceptual framework, survey protocol, and instruments
   - Enhanced buy-in from TVET institutions
   - Final survey instruments

3. Supply Side
   - TVET Institutions and Governance Bodies
     - Policies and governance
     - Institutional characteristics
     - Enrollment
     - Potential for private sector partnerships
   - TVET Administrators and Educators
     - Student preparedness
     - Areas for improvement
   - TVET Students
     - Interest in other fields not offered
     - Participation in apprenticeships

4. Demand Side
   - Employers
     - Performance of grads
     - Training gaps
     - Partnership mechanisms with TVET Institutions
   - TVET Graduates
     - Preparation for labor force
     - Social and economic influence on career choices

Multi-stakeholder primary data on female TVET participation

Analysis and Results

4. Analysis and Results
   - Documented analysis that facilitates the achievement of TVET priorities in National Development Strategy
   - Report on findings

Stakeholders Included in Analysis

Stakeholders Not Included in Analysis
In certain GCC countries, females participation in TVET remains much lower than that of men; This is particularly true at the upper secondary level

<table>
<thead>
<tr>
<th>Country</th>
<th>Lower Secondary TVET Enrollment</th>
<th>% Females</th>
<th>Upper Secondary TVET Enrollment</th>
<th>% Females</th>
<th>Tertiary TVET Enrollment</th>
<th>% Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>No pathway</td>
<td>No pathway</td>
<td>15%</td>
<td>14%</td>
<td>14%</td>
<td>59%</td>
</tr>
<tr>
<td>Kuwait</td>
<td>1%*</td>
<td>0%</td>
<td>4%</td>
<td>8%</td>
<td>Data not available</td>
<td>Data not available</td>
</tr>
<tr>
<td>Oman</td>
<td>No pathway</td>
<td>No pathway</td>
<td>Data not available</td>
<td>Data not available</td>
<td>31%</td>
<td>57%</td>
</tr>
<tr>
<td>Qatar</td>
<td>No pathway</td>
<td>No pathway</td>
<td>1%</td>
<td>No female track</td>
<td>26%</td>
<td>43%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>6%*</td>
<td>2%</td>
<td>1%</td>
<td>11%</td>
<td>11%</td>
<td>25%</td>
</tr>
<tr>
<td>UAE</td>
<td>No pathway</td>
<td>No pathway</td>
<td>3%</td>
<td>19%</td>
<td>9%</td>
<td>62%</td>
</tr>
<tr>
<td>OECD Avg.</td>
<td>3%</td>
<td>19%</td>
<td>46%</td>
<td>43%</td>
<td>16%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Notes: Data is from the latest year available. In some cases, UNESCO data differs from publically available national level data., * It is unclear why UNESCO Statistics include students at the lower secondary level enrolled in TVET as country level documents do not reflect the existence of such institutions.
A range of socio-cultural factors encourage women to pursue academic rather than technical education

<table>
<thead>
<tr>
<th></th>
<th>Evolving Views on the Importance of Education and Female Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cultural norms may serve as a barrier to females attaining certain types and levels of education</td>
</tr>
<tr>
<td></td>
<td>Cultural ideas about appropriate work for women may specifically limit opportunities to study technical fields</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Family and Marriage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Families often play important roles in helping women decide what to study and where to work</td>
</tr>
<tr>
<td></td>
<td>Women in most GCC countries do not have equal rights to men in family status or labor laws</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Workplace Values and Notions about the Importance of Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Commitments to family and friends may be considered a higher priority than work</td>
</tr>
<tr>
<td></td>
<td>These views have a strong influence on choices women make about their education and careers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Low Rates of Female Entrepreneurship</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Female entrepreneurship rates are substantially lower than male entrepreneurship rates</td>
</tr>
<tr>
<td></td>
<td>Women face gender-specific barriers to starting businesses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Few Social Development Centers that Serve At-risk Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Many GCC countries have initiated programs to support vulnerable women</td>
</tr>
<tr>
<td></td>
<td>Yet, the role of such institutions and the types of support they provide to at-risk women is evolving</td>
</tr>
</tbody>
</table>
There are also a variety of systemic and educational barriers that deter female enrollment in TVET (1/2)

<table>
<thead>
<tr>
<th>Limited Secondary Institutions</th>
<th>Insufficient Career Guidance</th>
<th>Academic Tracks are Incented</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Women are a minority in secondary TVET in all GCC nations and remain excluded from many vocational options at the secondary level</td>
<td>▪ Women lack sufficient information on TVET options and are often encouraged by family members and teachers to continue studying at university</td>
<td>▪ Because admissions standards for TVET programs are usually lower than academic programs, they are viewed as less prestigious than four-year university programs</td>
</tr>
<tr>
<td>▪ TVET options at the secondary level are limited and concentrated in fields which perpetuate gender-biased views about appropriate future career tracks for females</td>
<td>▪ High quality career guidance programs are uncommon in GCC nations, and, when they are offered, the guidance provided is typically focused on coaching students towards academic forms of education</td>
<td>▪ National and company funded scholarship programs are focused on sending students to four-year, academic-oriented universities and reinforce gender-biased perceptions about the industries and roles that females should aspire to work in</td>
</tr>
</tbody>
</table>
There are also a variety of systemic and educational barriers that deter female enrollment in TVET (2/2)

### Few Female Faculty Members
- Lack of female faculty available to teach TVET programs may implicitly send the message that technical fields are either not appropriate career choices for females or that women are less successful in these fields.
- Females are generally concentrated in the lower ranks of faculty structures.

### Gender Bias in Curricula
- Curricula and learning materials contain implicit biases that portray women in administrative rather than technical positions.
- Textbooks re-enforce socio-cultural norms that women should stay at home or should take predominantly desk-based work in the future.

### Unproven Online Initiatives
- Online and mobile learning has been suggested internationally as one way to overcome preferences for gender segregated environments and to reach more women with familial obligations, but such platforms have been relatively recently introduced to the region.
- There are doubts that online learning is mature enough yet for hands-on, applied technical learning.
GCC educational policies also reinforce females pursuing academic pathways

System Structures That Promote Academic Pathways

- Secondary technical and vocational schools tend to be viewed as second-best options for those who do not have the grades for academic tracks which lead to university
- Upper secondary tracks do not attract girls so they are exposed to technical pathways much later than male students and are unaware of post-secondary options

Academic Bias in Policies

- Educational policies that sort students based on grades tend to reinforce existing notions that academic tracks are superior to vocational pathways

Licensing, Accreditation, and Quality Procedures

- Inexplicit licensing and accreditation standards and unclear quality procedures lead to non uniform quality
- Lack of clear standards for licensing and accreditation undermines quality perceptions of TVET providers
When entering the workforce, women encounter perceptions and barriers concerning what types of jobs they should hold which leads to segregation of gender by occupation.

### Female Employment by Occupation and Gender in Bahrain, Qatar, UAE, and Saudi Arabia

<table>
<thead>
<tr>
<th>Employment Sector</th>
<th>Bahrain Male</th>
<th>Bahrain Female</th>
<th>Qatar Male</th>
<th>Qatar Female</th>
<th>UAE Male</th>
<th>UAE Female</th>
<th>Saudi Arabia Male</th>
<th>Saudi Arabia Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry</td>
<td>.2%</td>
<td>.2%</td>
<td>.1%</td>
<td>0%</td>
<td>.6%</td>
<td>.4%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>4%</td>
<td>1%</td>
<td>12%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>7%</td>
<td>.8%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>18%</td>
<td>11%</td>
<td>2%</td>
<td>.4%</td>
<td>2%</td>
<td>2%</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>Electricity, gas, steam</td>
<td>.7%</td>
<td>.2%</td>
<td>2%</td>
<td>.5%</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
<td>.1%</td>
</tr>
<tr>
<td>Construction</td>
<td>11%</td>
<td>10%</td>
<td>1%</td>
<td>.3%</td>
<td>1%</td>
<td>.5%</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>17%</td>
<td>17%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>11%</td>
<td>6%</td>
<td>6%</td>
<td>3%</td>
<td>6%</td>
<td>6%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Accommodation and food</td>
<td>4%</td>
<td>3%</td>
<td>.7%</td>
<td>.7%</td>
<td>0%</td>
<td>0%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Financial and insurance</td>
<td>9%</td>
<td>11%</td>
<td>2%</td>
<td>5%</td>
<td>3%</td>
<td>11%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>8%</td>
<td>10%</td>
<td>1%</td>
<td>.3%</td>
<td>4%</td>
<td>2%</td>
<td>11%</td>
<td>28%</td>
</tr>
<tr>
<td>Public administration</td>
<td>.2%</td>
<td>.2%</td>
<td>65%</td>
<td>37%</td>
<td>71%</td>
<td>32%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.4%</td>
<td>2%</td>
<td>3%</td>
<td>33%</td>
<td>2%</td>
<td>27%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human health and social work</td>
<td>.5%</td>
<td>1%</td>
<td>2%</td>
<td>13%</td>
<td>1%</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts, entertainment</td>
<td>0%</td>
<td>0%</td>
<td>.6%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other service activities</td>
<td>1%</td>
<td>2%</td>
<td>.1%</td>
<td>.06%</td>
<td>.3%</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraterritorial organizations</td>
<td>0%</td>
<td>.1%</td>
<td>0%</td>
<td>0%</td>
<td>.1%</td>
<td>.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Specified</td>
<td>25%</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Socio-cultural perceptions concerning female employment and what types of jobs they should hold limits employment in technical fields (1/2)

1. Cultural Ideas of Appropriate Work
   - Women are likely receiving implicit messages – from their families, media, and the educational system – that work does not need to be a central goal in their lives.
   - Socio-cultural beliefs about female employment often encourage women to pursue certain types of jobs, namely professional and administrative positions, in the public sector.

2. Occupational Segregation
   - Occupational segregation puts specific demands on employers, and they are often unwilling or unable to provide separate facilities for females.
   - Gender segregation can also perpetuate labor market segmentation by decreasing the number of jobs available to women.

   - GCC populations associate occupations requiring manual labor, such as agriculture or crafts, with lower class status.
   - Cultural preferences that shun manual work continue to make it difficult for women to pursue positions both in the private sector and technical fields.
Socio-cultural perceptions concerning female employment and what types of jobs they should hold limits employment in technical fields (1/2)

- There is often a lack of female role models in technical professions, the private sector, and in leadership roles in the GCC.

- Lack of cultural models of women in leadership positions, particularly in the private sector, makes it difficult for younger women interested in technical positions to envision themselves in such roles and may act as a disincentive for females interested in technical careers.

- Professional and administrative positions in the public sector are considered more prestigious, which means that women interested in technical positions will likely be exposed to negative social pressure to avoid technical professions.

- The social desirability of the public sector in many GCC countries is also further perpetuated by significant wage differentials between public sector roles and salaries offered in technical fields.

- GCC women balancing family commitments with work are unable to work on flexible schedules due to employer resistance to part time employment modalities.

- Women increasingly view work as vital insurance against the breakup of marriages and a source of respect.
Women also encounter difficulties finding employment due to structural labor market features which serve as constraints on the fields they can enter.

### Economic Structure and Planning Limitations
- Predominantly reactive methods of defining workforce skills lead to skills gaps and shortages
- Women selectively apply to “appropriate” jobs while employers believe women are not well qualified

### Lack of Diversification
- The male-dominated extractive industries remain the major economic sector in GCC nations
- Diversification has not led to significant job creation in fields that are acceptable and offer sufficient wages

### Foreign Labor
- High percentages of foreign males in the private sector may deter female participation
- High concentration of male workers encourages women to seek employment in fields with more women

### Salaries and Reservation Wages
- Due to the attraction of relatively high wages, permanent employment, and status females prefer the public sector
- Private sector employers remain hesitant to hire nationals

### Favorable Conditions of Public Sector Employment
- The public sector is perceived as female-friendly and tends to have fewer working hours, better pay and benefits, and greater job security

### Female Unemployment and Labor Market Transitions
- Females face gender-specific barriers to school to work transitions
- Women utilize very few strategies for finding employment and rely primarily on government assistance
Although recently reformed in several GCC countries, labor market and social policies continue to influence the career decisions of females

<table>
<thead>
<tr>
<th>Family and Labor Laws Limit the Decisions of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family and personal status laws do not ensure that women will have the opportunity to work outside the home if she wishes</td>
</tr>
<tr>
<td>Family codes broadly emphasize that the husband is the head of the family and give the husband power over his wife’s right to work and travel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nationalization Initiatives Focus on Male Dominated Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>While nationalization initiatives may open up new avenues to female employment, they may not have the intended effect if nationalization efforts are focused on male-dominated fields</td>
</tr>
<tr>
<td>Helping women transition to the labor market in the private sector on their own terms will be critical to reducing unemployment rates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Labor Laws and Constitutional Protections Are Insufficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCC labor laws fail to adequately assert the rights of women or limit women’s rights to engage in certain types of employment</td>
</tr>
<tr>
<td>Women often face difficulty due to discriminatory workplace practices that are not fully accounted for in existing labor laws</td>
</tr>
</tbody>
</table>
Reforms to increase female enrollment in TVET and absorb technically trained females into the labor market will need to target a variety of levels and actors.
GCC countries could benefit from cooperation, dialogue, and information sharing in a number of areas

| Collaborating to Share Good Practices and Develop Statistical Standards |
| Developing Information to Facilitate Informed Educational and Employment Choices |
| Convening Knowledge Sharing Forums on Key Topics of Regional Interest |
| Facilitating the GCC Qualifications Meta-framework |
| Creating Gender Inclusive Content That Can Be Used in Classrooms Throughout the GCC |
| Improving Regional Career Counseling To Better Serve the Needs of Women |
| Indigenizing TVET Competitions So That They Are Championed by Regional Institutions |
| Changing Perceptions about TVET Through A Regional Media Campaign |
| Articulating an Agenda for Future Research To Guide Policy Research in the Field of TVET |
III. Articulating an Agenda for Future Research in the State of Qatar

There is a critical need for additional research on females’ education and employment choices in Qatar.

- What factors shape students’ educational decisions?
- Why do students choose TVET programs?
- What types of females are most interested in TVET but currently not pursuing TVET?
- What types of on-the-job training do students receive?
- What careers do TVET graduates enter?
- How can scholarships incent female TVET enrollment and employment?
- What are employers’ needs?
- How prevalent is non-formal and informal TVET?
Research Priorities

There is much to learn about factors affecting females’ educational and labor market decisions.

Qatar must pursue a rigorous research agenda on issues related to females’ incorporation into technical fields to design appropriate policies and interventions.

Moreover, Qatar must carry out research at the individual-level. Although national-level data is important to understand macro-trends, it cannot tell us about the specific factors shaping women’s motivations and decision-making processes.

Until now, few surveys have asked women about factors affecting their educational or labor-market decisions. Those that have been carried out (see Stasz et al. 2008) have focused on educational decisions, and targeted high-school students, rather than a larger segment of the Qatari population.
Research on TVET planning

Despite recognizing the importance of matching TVET providers to the country’s economic needs, there is little information or estimates on the exact needs of the labor market.

More detailed research is needed on what the growing sectors will be in the Qatari labor market and which professions are both expanding and considered appropriate for females.

This research should entail both the perceptions of youth themselves as well as those of employers to understand where there is crucial demand and where women are open to being trained for future jobs.
An important area for future research is the factors affecting women’s choice of university and academic majors.

- What factors have the strongest influence on women’s choices?
- What information do women have access to, and what information do they base their decisions upon?

Prior research has shown the importance of family influences.

However, as Qatar implements programs to expand females’ exposure to a variety of careers, it must also conduct rigorous evaluations of such programs to understand if they are having the desired effect or not.
Little research has actually investigated females’ experiences in their educational institutions.

- How satisfied are women with their majors and concentrations once they are in university?
- What factors affect their retention and performance?
- Do female students have access to labor-market training opportunities such as internships or work-study?

Some prior research has indicated that mentoring is important for female students in engineering departments in Qatar (Sulaiman & AlMuftah, 2010).

However, a deeper understanding of other factors that encourage females’ to not only major in technical fields but also excel in them is required.
In terms of the labor market, information about women’s labor market search strategies and factors affecting entry as well as exit is scant.

In terms of entry, a deeper understanding of what strategies women use in their labor market search and if these differ from their male peers is required.

Females have more difficult time with entering the labor market and are more likely to be unemployed and for longer periods. Their higher unemployment rates are likely related to their job search strategies.

Understanding where and how females look for employment is an important initial step in designing programs that help females expand their job search strategies and ease their entry to the labor market.
In terms of labor market exit, female employees leave the labor market starting at age 34 (see Section 4). That age is both above the average age of marriage and age of first child in Qatar, which suggests that women are not necessarily leaving the labor market simply because of marriage or childbirth.

Instead, perhaps females are beginning to leave because they qualify for certain retirement benefits (if they entered the labor market directly after high school for example) or because of other family considerations perhaps the birth of a second or third child.

This is an area that requires more research and cannot be answered from national-level statistics. Qatar should conduct individual-level labor market surveys to understand specific cultural factors, institutional conditions, and labor market policies that encourage or discourage females’ labor market departure.
Information on females’ access to work experiences prior to labor market entry, such as through internships programs, is lacking.

Similarly, it is unclear if internship programs actually persuade students to enter technical fields as careers.

It is possible that internship programs actually lead students to enter the public sector if they dislike their internship.

Research is needed both on how many students participate and what factors shape students’ experiences in these programs or contribute to their eventual entry into the labor market.
References


