



الجامعة الملكية للنساء
ROYAL UNIVERSITY FOR WOMEN

The First Private University "Accredited By HEC"
أول جامعة خاصة "معتمدة من مجلس التعليم العالي"



Bahraini Women in the Field of Engineering: Opportunities, Challenges, and Future Expectations

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November 2017

Introduction

- ▶ In its quest to develop a knowledge-based economy, the Kingdom of Bahrain has been dedicating great efforts towards encouraging all activities and professions that lead towards this; ensuring that both its men and women contribute equally in this process.

Introduction

- ▶ Over the past decades Bahraini women have pursued careers in many leading fields
- ▶ In regards to the field of Engineering, it can be observed that in spite of the fact that Bahraini women have been present in various fields of Engineering for many years, however, it seems that **their contribution has not been utilized to its full capacity.**

Introduction

- ▶ The Supreme Council for Women (SCW) has chosen “Women and Engineering” as the theme for year **2017**. In celebration of **“The Year of the Woman Engineer in the Kingdom of Bahrain”**, this presentation focuses in particular on the role of Bahraini women in the field of Engineering; highlighting the obstacles they face in the profession and providing recommendation for enhancement and support.

Introduction

- ▶ This presentation has been prepared in collaboration with SCW, incorporating the material provided by SCW as a the results of many outstanding activities organized and supported by SCW throughout 2017, in addition to other supporting material.

Questions

- ▶ What are the main fields of Engineering that have been attracting Bahraini women?
- ▶ What is the nature of contribution of Bahraini women in the various fields of Engineering?
- ▶ What are the expectations of Bahraini Women in the fields of Engineering?
- ▶ What kind of support is provided for Bahraini women pursuing careers in Engineering?

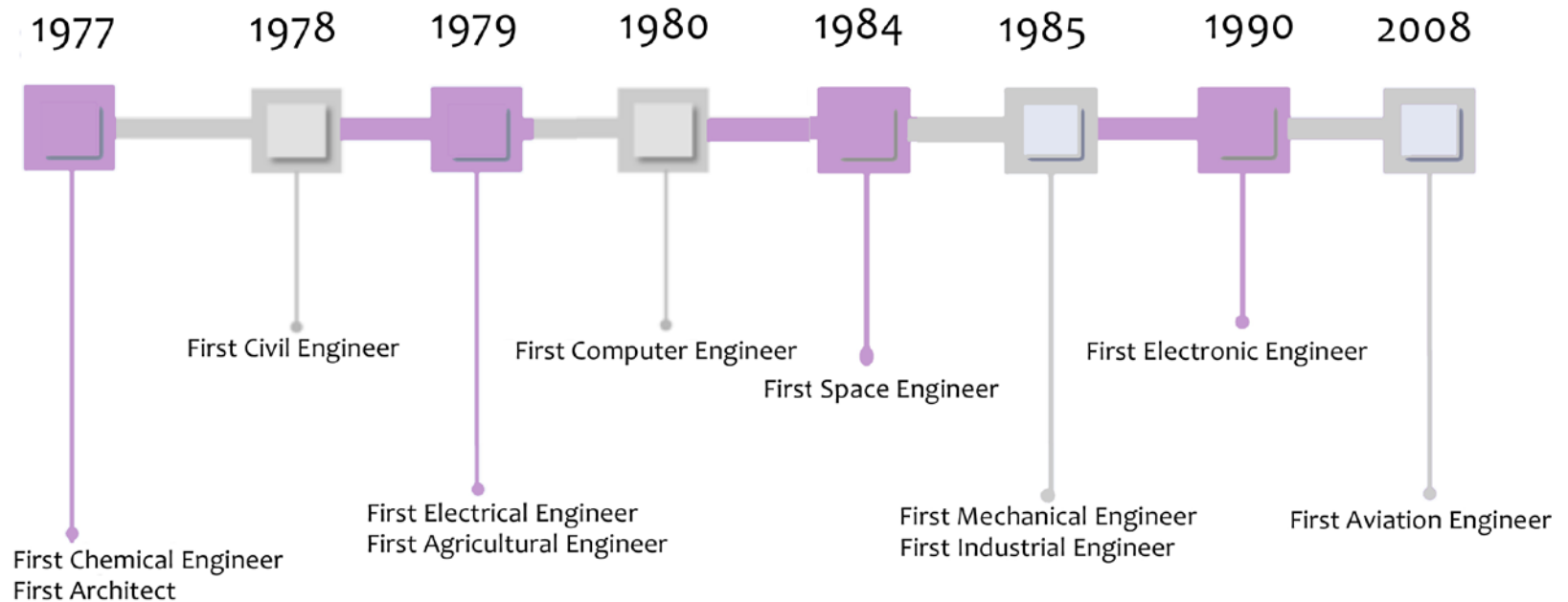
Other Questions

- ▶ What are the main challenges that face Bahraini women in this field?
- ▶ To what extent is “Equal Opportunities Program” applied to Bahraini women in the field of Engineering?
- ▶ How to support and enhance the role of Bahraini Women in the field of Engineering?

Bahraini Women in Engineering: An overview

- ▶ Society has a considerable impact on the career decision
- ▶ Traditional stereotypes towards a particular profession for a specific gender are the primary factors that influence this decision in this region
- ▶ Engineering is considered an important profession that steers a country in the direction of industrial development and modernization
- ▶ Engineering has been perceived as one of those professions that could be unsuitable for women due to the physical and other requirements of the profession.

Bahraini Women in Engineering- a timeline



(SCW Focus Group- Aug 29, 2017)

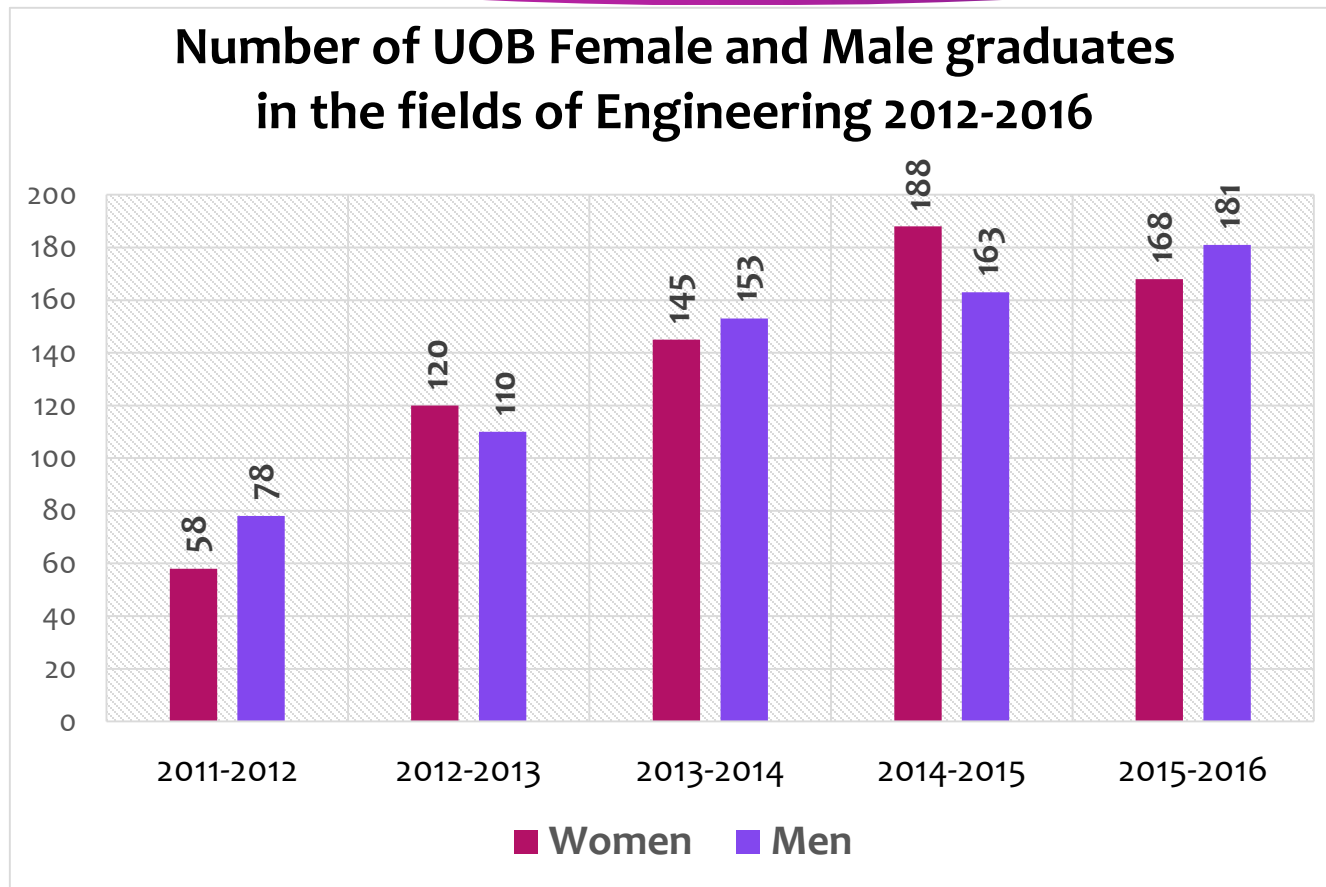
Engineering Education for Women

- ▶ Since 1977 when the first female engineer graduated in Bahrain, other women have developed a keen interest in this profession.
- ▶ A great increase can be noted in the number of women who enroll for various programs in Engineering at higher education institutions whether in Bahrain or in other international institutions.
- ▶ **There is no gender discrimination In Engineering Education in Bahrain.**

Engineering Education for Women

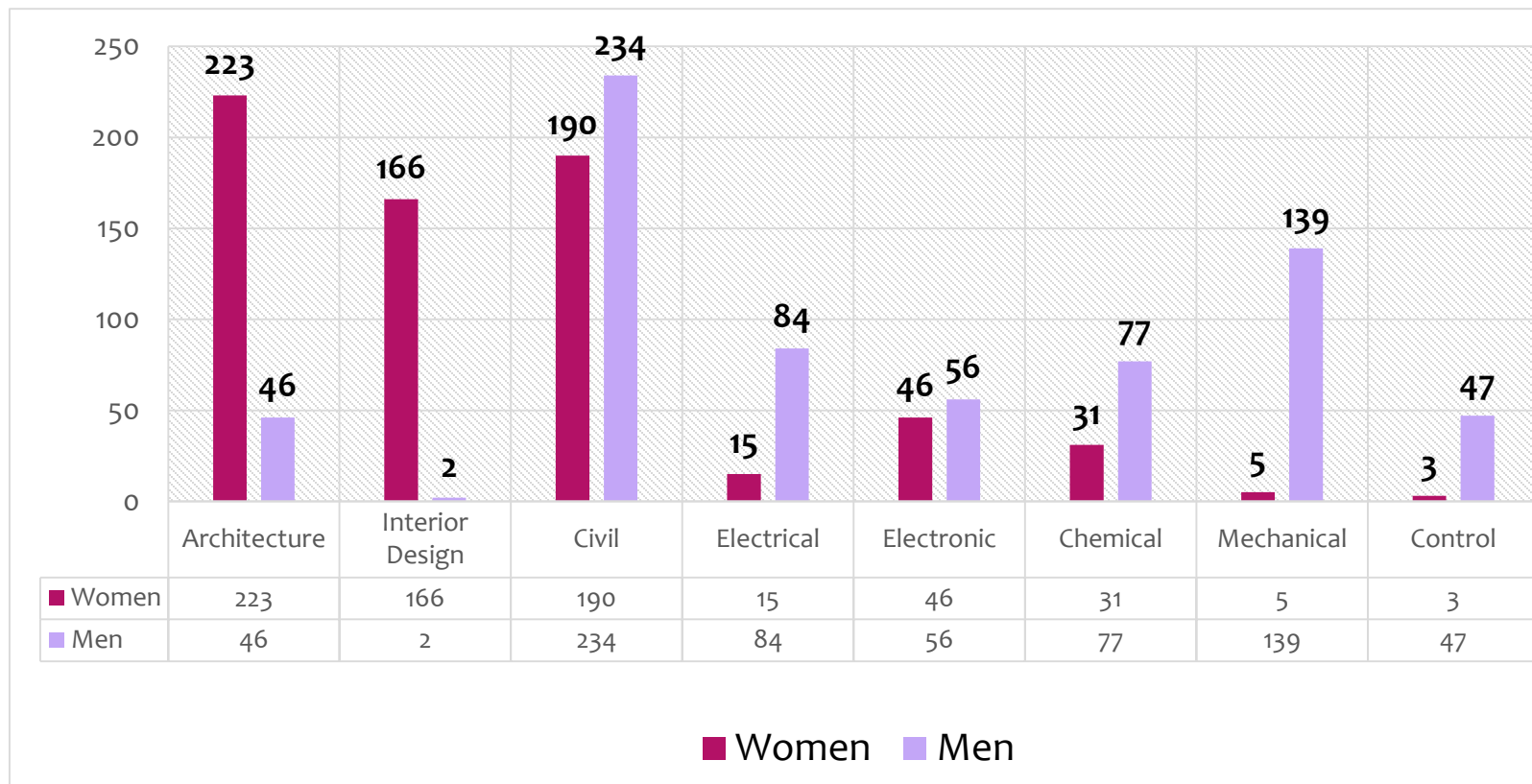
Public University	Private Universities that offer Engineering programs
<p>University of Bahrain:</p> <p>The College of Engineering offers various programs, as:</p> <ul style="list-style-type: none"> • Architectural Engineering • Civil Engineering • Electrical Engineering • Chemical Engineering • Mechanical Engineering • Control Engineering 	<ul style="list-style-type: none"> • Royal University for Women (RUW): Offers a program in Architecture solely dedicated to Women. A co-od WVU Civil Engineering is also hosted at RUW • Ahlia University: offers engineering • Applied Science University (ASU): hosting new engineering programs • AMA International University: 2 Eng. programs • Others

Bahraini Women Graduates in the field of Engineering





UOB Graduates from College of Engineering as per filed 2012-2016



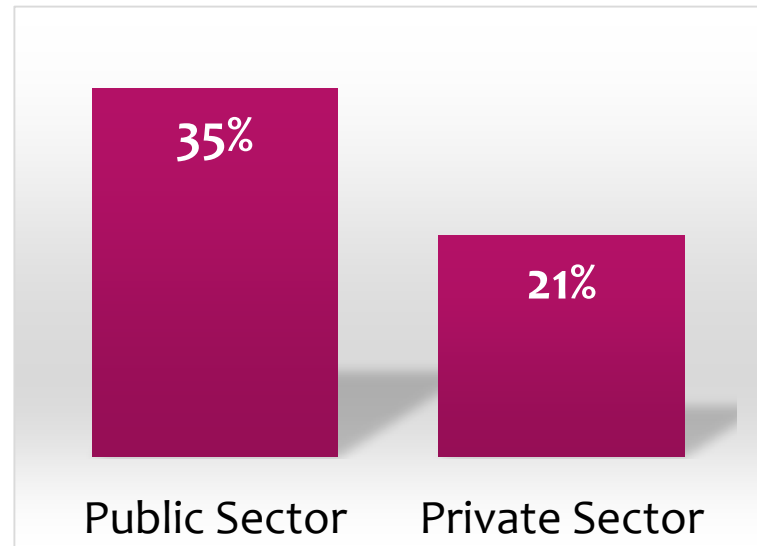
UOB Graduates from College of Engineering as per filed 2012-2016

- ▶ The previous table indicates **that certain fields like** Architecture and Civil Engineering are very attractive to women.
- ▶ While others, though they are very important, are not very **attractive to Women, as** Mechanical, Electrical, and Control Engineering.
- ▶ This could be due to social issues, employment opportunities, or a lack of engineering scholarship programs offered for Bahraini women in these fields.

Employment of Bahraini Women Engineers

- ▶ It is very important to follow up on the employment status of the Women graduates.
- ▶ The high employment rate of female engineers shows a change in the initial reservations employers previously had concerning women.
- ▶ However the percentage of Bahraini Women in Leadership positions still remains limited. Statistics show this to be only **(31%)** in the public sector

% of Employed Bahraini Women Engineers of total Bahraini Engineers



Public Sector is better at Employment of Bahraini Women Engineers than the Private Sectors

(SCW Focus Group, Aug 2017)

Equal Opportunities Program by SCW

- ▶ There still remains to be a large number of Women Engineering graduates **who do not pursue a career in Engineering**.
- ▶ There are **national efforts led by the SCW to enhance equal opportunities** between men and women. These efforts are implemented according to a national model and in collaboration with partners from all sectors.
- ▶ This initiative seeks to integrate the needs of women by developing practices that are supportive in the context, increasing the alternatives and enhancing the skills in the society in a way that will support the rights of women.

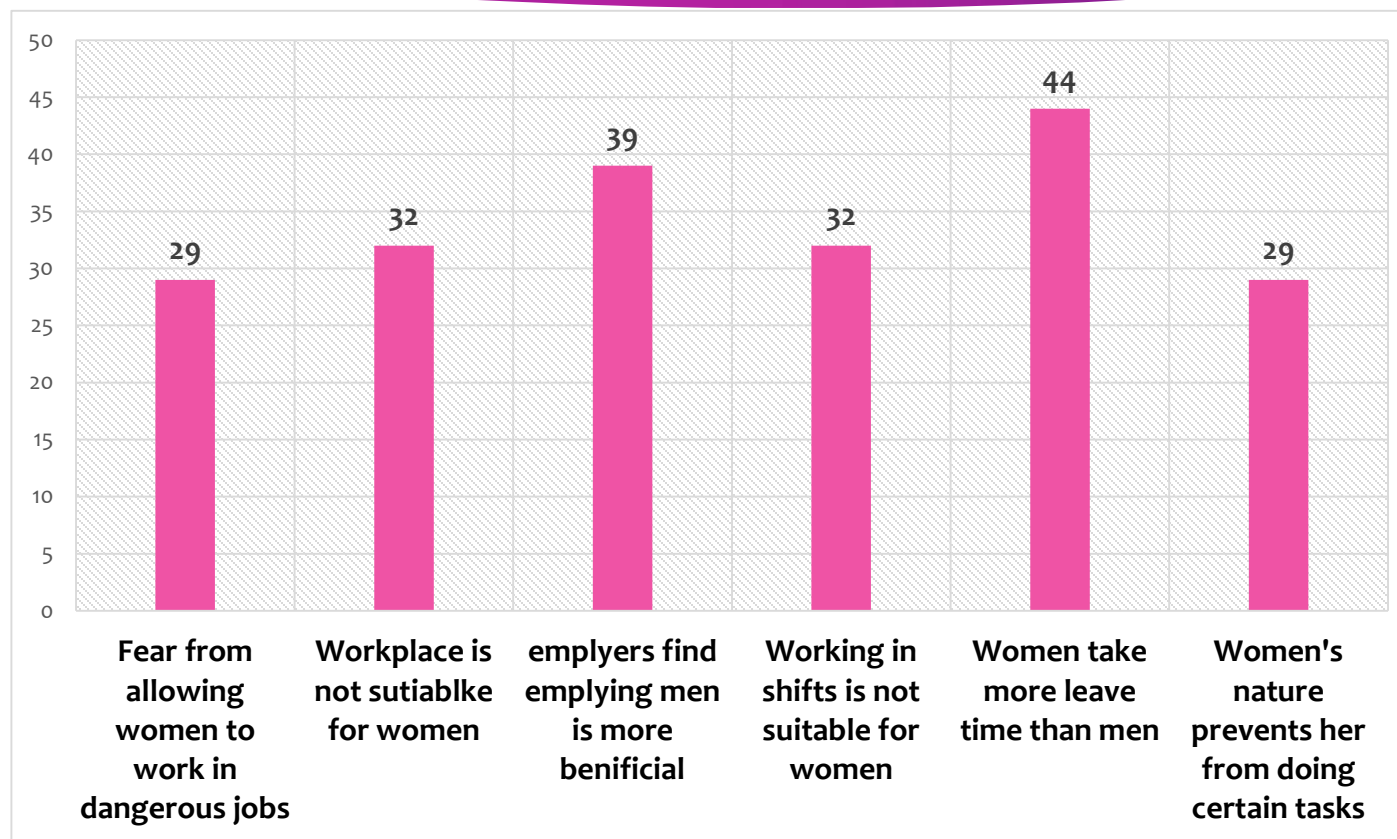
Bahraini Women Engineers' Employment: Challenges and Recommendations for Improvement

(The following are results from Focus groups, other SCW material, RUW survey and other literature)

1. Stereotyping

Challenges	Recommendations
<p>Though Engineering Education allows equal opportunities for women, however the issue of Stereotyping appears due to :</p> <ol style="list-style-type: none">1. Society, employers, and co-workers have a pre-conceived ideas of women Engineers2. Stereotyping does not encourage women to become a part of this profession3. Stereotyping even during internships.	<ol style="list-style-type: none">1. Men must be willing to accept the input of women in this profession.2. Concerned organizations should ensure eliminating gender stereotypes in all professions3. The private and public sectors as well as international organizations should provide the support needed to improve the participation of women in engineering in Bahrain.4. Women themselves should be leaders in this regard.

Employers constraints when employing women in STEM in Bahrain



(Alansari, 2017)

2. Lack of Role Models

Challenges	Recommendations
<ol style="list-style-type: none">1. Young women engineers lack role models in their careers2. As a male-dominated field, most of the engineers are men.3. Men are mostly employed to top positions4. Few women are granted opportunities in tasks that require more involvement and decision-making.	<ol style="list-style-type: none">1. This professional intervention and support from women engineering role models will encourage young engineering students2. Women themselves bear the responsibility to overcome this matter by become good role models to their children, students, employees, etc.3. Access to mentors and experts4. Surrounded students by great women who guide and mentor them being role models.

3. The Education System

Challenges	Recommendations
<ol style="list-style-type: none"> 1. Cultural barriers may prevent female students from participating in certain programs, field and lab work, internships, etc. 2. Female students hearing issues of the workplace as women denied leadership roles, and the low representation of women in the important workplaces matters may discourage them from doing their best during their studies 3. Women Engineering students may change their major while still in college and others who change their profession upon completion. 4. Internships or industry placements, and seminars or workshops on employability and quality set skills, are not effective 	<ol style="list-style-type: none"> 1. Further promoting Engineering education for women 2. Institutions must provide students with proper mentoring and guidance to overcome issues and concerns of Women students to overcome the gap between reality and expectations. 3. Orientation programs in high school to help further understand the profession 4. Offering scholarships and training programs for female students 5. Equal opportunities for Internships

Students' feedback on university sponsored activities

University Activity	Student response
Internship and Industry Placements	Not very Effective
Career Counselling and Guidance	Least effective
Seminars and Workshops on employability and Quality Set Skills	Not very Effective
Extracurricular Activities related to Skills enhancement	Effective
Appropriate Courses for Discipline	Effective

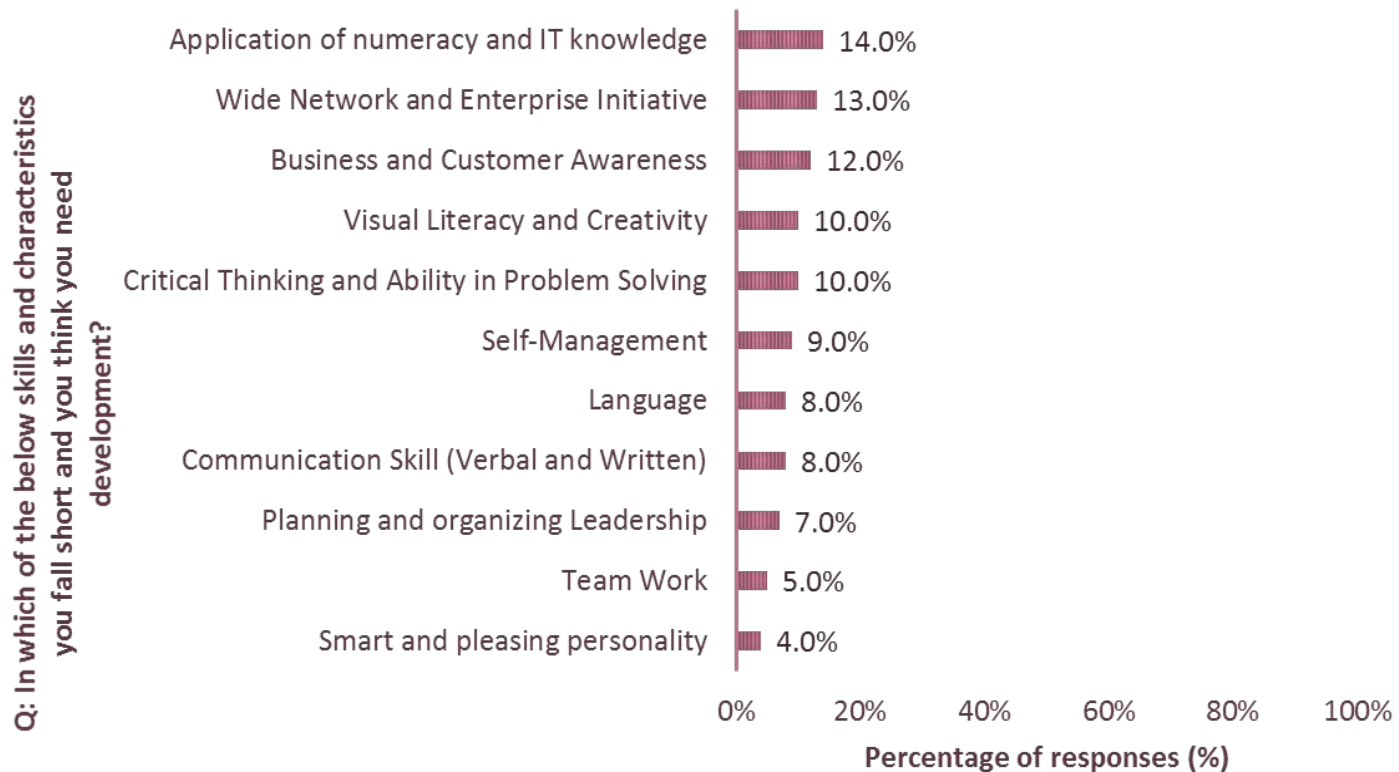
(Kadhem, 2017)

4. Employability Skills

Challenges	Recommendations
<ol style="list-style-type: none">1. A Main challenge, skills that are taught in universities and the skills employers look for are sometimes very different.	<ol style="list-style-type: none">1. Mindset can be shifted away from only acquiring a qualification to acquiring a qualification plus a set of required skills by the industry.2. Universities must work with employers and sector leaders to shape curriculums.3. Employability skills must be embedded within the curriculums

The role of HEC must be highly recognized for their role in this regard. Embedding Employability skills in curricula.

Employability Skills gaps according to graduates

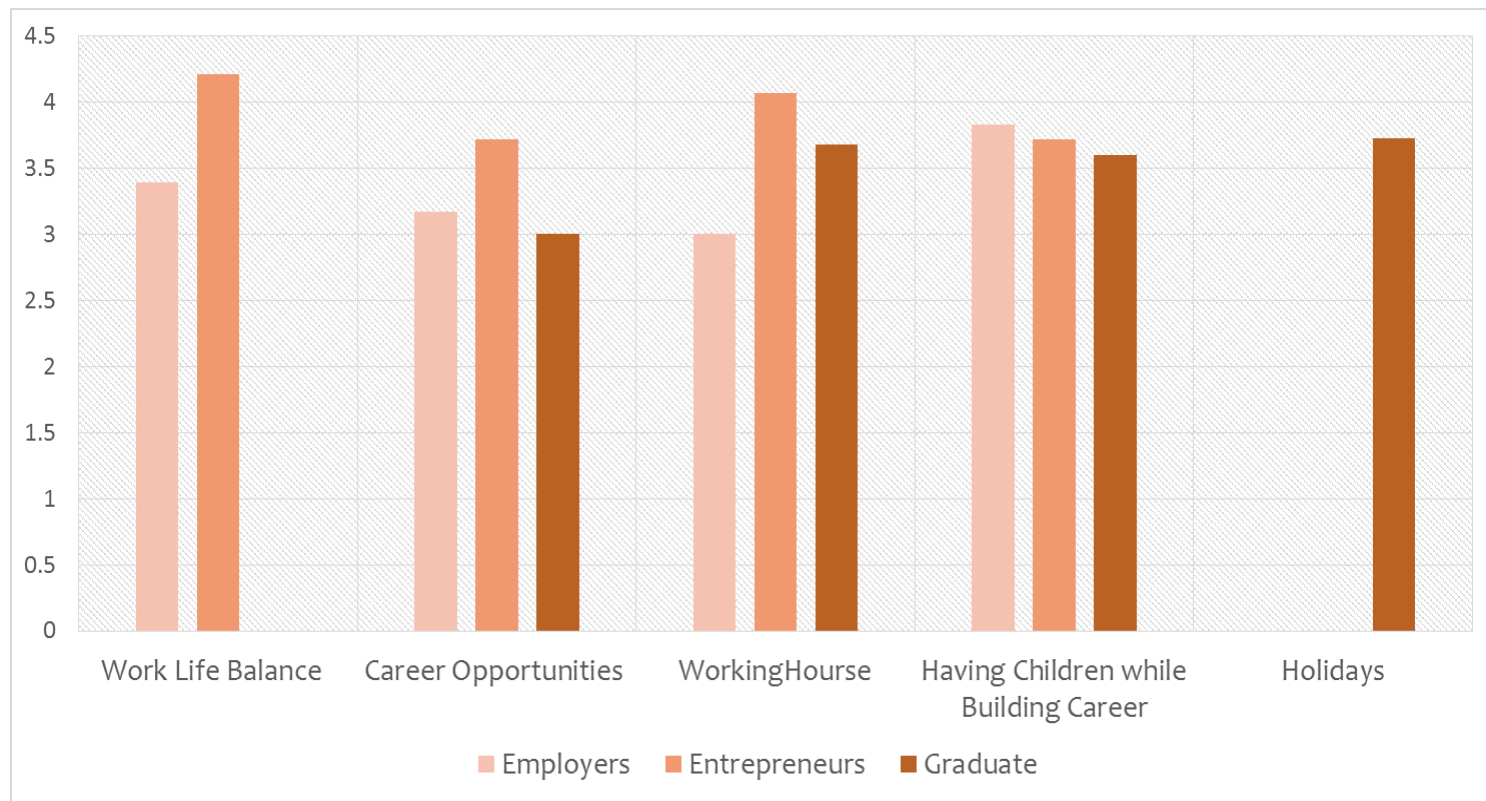


(Kadhém, 2017)

5. Work-Life Balance

Challenges	Recommendations
<ol style="list-style-type: none">1. Balance between work and family is a main challenge Bahraini Women Engineers face.2. Working hours is among one of the main obstacle3. Difficulty to balance between career and family life, having children while building a career	<ol style="list-style-type: none">1. Supportive services to create “Women Friendly” work environments must be addressed carefully by the Ministry of Labor and Social Development and overseen by employers.2. Compromise the labor law article and assign women challenging and night shift tasks if they prove capable3. Providing additional support for women in the workplace as day care for children, etc.

Work-Life balance challenges that face Bahraini Women Engineers



(Kadhem, 2017)

6. Accessibility for Women Engineers with Disabilities and Special Needs

Challenges	Recommendations
<ol style="list-style-type: none">1. Bahraini women with physical disabilities are eager to be a part of the engineering work force.2. Working environments and the educational environments make it very difficult3. They are rejected by employers	<ol style="list-style-type: none">1. Law should require all companies to be “accessibility friendly”2. Working environment should be designed for accessibility.3. Hire Bahraini women engineers based on their qualifications and merit

7. The Laws and Regulations in Practicing Engineering in the Kingdom of Bahrain

Challenges	Recommendations
<ol style="list-style-type: none"> 1. (Chapter 5, Article 17) of the terms of “License Expiry” discussing death of a license holder 2. Law does not allow firm working with a joint venture or more than one specialty, which create limitations 1. Foreigners rights to start their engineering is not fair to Bahrainis 2. Women to work in shifts is not allowed 	<ol style="list-style-type: none"> 1. The laws and regulations related to the Engineering professional practice must be reviewed and benchmarked with international norms in order to further enhance the engineering profession in Bahrain 2. Laws must further support Bahraini women engineers, be gender sensitive, and provide support for women engineers.

8. Lack of Awareness

Challenges	Recommendations
<ol style="list-style-type: none">1. Women Lack awareness of their professional rights2. Engineers and the registration process, which has to be done through The Council for Regulating the Practice of Engineering Profession in the Kingdom of Bahrain (CRPEP).3. Women not understanding the nature of the field	<ol style="list-style-type: none">1. Continuous conversation through conferences and symposiums2. The National Plan for “Advancement of Bahraini Women” achieves the following:<ul style="list-style-type: none">Family stabilityEqual opportunitiesEnhance quality of lifeEncourage life-long learning3. Raising awareness and guiding graduates

9. Equal Opportunities

Challenges	Recommendations
<ol style="list-style-type: none">1. Obtaining leadership and top management positions in the field in difficult and scarce.2. Women Engineering students graduate with higher grades and merits than men, however the best jobs and the top positions are still male-dominated.3. Employers, believe women are unable to handle difficult tasks.4. Employers assign women tasks that do not build on the skills	<ol style="list-style-type: none">1. The “Equal Opportunity Program” initiated and supported by SCW should be closely implemented and embedded in every organization’s framework. This includes:<ol style="list-style-type: none">a. Promotion of individuals in organizations should be based on merit, productivity, and achievementsb. Fairness of recruitment.c. Ensure the full involvement of women in key decision-making

Final Statement

- ▶ As the Kingdom of Bahrain moves towards a knowledge-based economy where every member of the society must be allowed to be an active member and play a sufficient role, “Equal Opportunities” becomes a must. The Engineering field requires the involvement of the men and women in all areas of engineering.
- ▶ Employers are required to grant women leadership opportunities and support them in their careers.

- ▶ It is highly appreciated and admirable to see that great accomplishments and advances are underway in this regard in the Kingdom of Bahrain.
- ▶ The continuous support SCW offers is unique in the region and in the world and will defiantly empower Bahraini Women in general and Women Engineers in particular to excel.

Thank you

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