



Higher Education for Girls in Saudi Arabia and its Relevance to the Labor Market*

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Abstract

Saudi Arabian girls have made concrete progress in education, obtaining the highest academic degrees in various branches of knowledge. However, higher education statistics reveal that most of them are in the field of education. Moreover, year after year, large numbers of new graduates fail to find jobs. The Kingdom of Saudi Arabia has recognized this problem and adopted policies aimed at adapting girls' higher education to development needs and the labor market. This study highlights the problem and the policies adopted through a set of structural measures.

The methodology of this study is based on data collection and analysis of statistics on the impact of relevance policies on the restructuring of higher education for girls. One of the most prominent conclusions is that inputs to higher education have in general improved, so that the majority of available disciplines now correspond to the needs of the public and private labor markets.

I. Introduction

Despite the historical delay of women's enrollment in education in the kingdom of Saudi Arabia (KSA) in general, girls' higher education (HE) has witnessed significant leaps during the last three decades. The establishment of colleges and institutes in many regions, provinces and cities has grown and the participation rate of women in HE has increased and exceeded that of men. Saudi women have made concrete steps in the education field and have received the highest academic degrees in various branches of knowledge. Education at all levels, and in particular HE, started to attract a large number of Saudi girls who look forward to serve their society and participate in the labor market. However, the observation of girls' HE statistics shows that the majority of HE is concentrated in the teaching field. In fact, there was an urgent need for female graduates in education to work in the schools whose number were increasing day in day, out as a result of the spread of women's education.

However, year after year, the saturation of the labor market with female teachers led to the

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accumulation of a large number of female graduates unable to find job opportunities. The Ministry of HE, aware of this problem, adopted structural policies aimed at orienting girls' HE to make it compatible with development needs and labor market requirements. To this end there was a need to adopt new and diversified policies for the development of human resources and to make strategic planning for the employment of manpower, especially the female labor force. This was becoming increasingly important in light of the changes occurring in Saudi society. This study focuses on this problem and on the policies adopted by the Ministry concerning that issue. Development plans focused on highlighting the role of women in the Saudi labor market and underlined the need to ensure wider work opportunities for them and to search for alternatives to which women's potentials could be oriented. In addition, the Council of Ministers called for the widening of women's work areas, the issuance of licenses allowing women to practice economic activities, and the establishment of units and sections for women in the government departments. The Shura Council, for its part, called through a comprehensive national education strategy, for the expansion of education, work and training opportunities for Saudi women in a way that suits their nature and does not conflict with the Islamic Shari'a. This could be done by restructuring HE, formulating curricula that are oriented to the majors needed in the labor market, expanding the program of Human Resources Development Fund, and benefiting from the Information Technology to widen the areas of distance work for women.

The number of students enrolled in HE has significantly increased beyond expectations and capacity plans. Consequently, the number of graduates in some majors has exceeded the employment needs of state sectors. However, the government and private sectors are still in need of graduates in other majors. Despite the controversy raised in many forums regarding the role of the university in society and whether the university's mission is to ensure a job-oriented training or an educational training, the national duty requires to orient the government's efforts in a complementary way toward serving the nation and its citizens. This includes benefiting to the maximum from the educational output, given the enormous efforts that are deployed in the training of students. Therefore, employment bodies, whether governmental or private, should clarify their planned needs of manpower over an adequate period of time (for example 10 years or more). In addition, HE institutions and the relevant bodies should unite their efforts in order to ensure the employability of graduates.

II. Developments in girls' HE in KSA

In KSA, girls' education did not officially start until 1960, nearly 30 years after the foundation of the country. In that year, the state declared the establishment of the «General Division for Girls' Education» to develop plans and curricula regarding the different stages of girls' education. In KSA public education for boys started more than 35 years before that of girls. The social and economic circumstances in the Arabian Peninsula had a decisive impact on that, since girls' education had been limited then to existing private schools and Quranic schools that used to teach the Quran as well as reading and writing basics. History records the courageous step that King Faisal made when he managed, to stand up to and face the opposition to girls' education at that time.

Within a short period of time, everyone in the country realized that girls' education was conducted according to a strict and well-studied educational and administrative plan. This encouraged people to enroll their daughters in schools and to constantly call for the establishment of more schools in the villages and hamlets. Thus, girls' education became one of the brightest aspects of education in KSA (Al Hamid and others, 2007).

The secondary level (governmental) in girls' education started in 1964 with the opening of a secondary school with 21 female students enrolled. From that time, secondary schools for girls were successfully established all over KSA. The number totaled 797 schools with 165,329 enrolled students in 1995. In 2004, the number of these schools increased to 1,974 with 426,309 enrolled students (Al Hamid and others, 2007).

The enrollment of females in Saudi universities started in 1961 - 1962 at the College of Arts and the College of Administrative Sciences at King Saud University, which was founded in 1957. In the beginning, female students enrolled in the university accounted for 5% of the total then it increased to 8.2%.

Since its foundation in 1967, King Abdul-Aziz University in Jeddah as open to girls. It started with 30 female students and 68 male students. In the same year, the College of Education in Mecca (it was affiliated to the Ministry of Education) also allowed girls to enroll and their number there reached 29. In 1968, Imam Mohammed Ben Saoud Islamic University offered the same opportunity and enrolled two girls.

In 1971, the General Division for Girls' Education opened the first Girls' College of Education which included 12 departments and in which 82 students enrolled (Al Bakr, 1994).

Colleges of education for girls then started to be successfully established reaching a total of 102. Some of these colleges include scientific departments such as: Physics, Chemistry, Mathematics, Zoology, Botany and Microbiology, and Computer Science. Others include humanities departments such as: Educational Sciences, Social Sciences, and Literature. There are also colleges which specialize in Home Economics.

The target of the First Development Plan (1970 - 1975) was to provide more education opportunities at all levels, from primary to university level, taking into account the strengthening of educational institutions and enhancing the efficiency of its study programs. With the opening of new areas for females in university education in many regions of KSA, the proportion of women enrolled in universities increased from 5.5% to 14.1% of all Saudi students in 1970 (Al Bakr, 1994). And with the increase of secondary school graduates, the proportion of women enrolled in universities increased from 29.5% in 1981 to 61.8% in 2001 (HE Statistics, 2002).

The annual average of the increase in the number of female students enrolled in HE during the First Development Plan represents a remarkable phenomenon since it reached nearly 50%, whereas that of males was 21.2%. This phenomenon is due to the many opportunities for girls' enrollment in universities, and the absorption of a large number of students by women colleges. In addition, the opportunities for females to enroll in HE increased, so the number of female students enrolled in Masters programs reached 882 in 1986 while that of male students was 2,332. As for PhDs, the number of students was 221 for females and 666 for males (Al Bakr, 1994). Majors available for female students until 1981 were as follows: 90% were studying general and humanity courses of which 48% were enrolled in Letters, Social Sciences and Religious Sciences. In addition, 10% were enrolled in Business and Economics, 30% in Education, and about 12% in scientific studies including Medicine. In 1991, the proportion of female students decreased to 36% in Social and Human Sciences and in Islamic Studies, but it increased to 38.8% in Education. However, it did not exceed 11% in Natural Sciences and 5% in Medicine. (Al Bakr, 1994).

In 2004, the percentage of female students reached 58.8% of all students enrolled in HEIs at Bachelor level. The largest numbers of female students enrolled were in the field of Education, which accounted for 46.5% of all female students. In 1991, the percentage of female students enrolled in Business and Economics, Computer Science, Journalism, Media, and Natural Sciences reached respectively 19.3%, 40.3%, 23.2%, and 25.4% of all students enrolled in these fields.

The proportion of female students continued to range between 37.7% and 42.2% of all students enrolled in the Health Sciences from 1981 till 2004 (HE Statistics, no 24 - 27).

The number of graduates has doubled during the years of development plans. During the seventh 2000 - 2004 development plan, the total number of graduates at Bachelor level reached 199 thousand students of which 66% were females (Eighth Development Plan, 2005 - 2009, p.423).

Table 1 shows the distribution of male and female students enrolled in HEIs according to the field of study during the years 1980 - 1981, 2000 - 2001, and 2005 -2006.

Table 1: Distribution of BA/BS students, according to gender and field of study
a. For the year 1980- 1981

Field of study	Females	Males	Total	% of females	% of males
Health Sciences	1138	1665	2803	40,6	59,4
Engineering Sciences	0	5715	5715	0	100
Educational Sciences	4232	3998	8230	51,4	48,6
Agricultural Sciences	79	1060	1139	6,9	93,1
Natural Sciences	835	2453	3288	25,4	74,6
Business, Economics and Social Sciences	1649	7349	8998	18,3	81,7
Islamic Studies and Humanities Studies	8146	16190	24336	33,5	66,5
Total	16079	38430	54509	29,5	70,5

Source: HE Statistics in KSA, academic year 1980 -1981, no 4

b. For the year 2000 -2001

Field of study	Females	Males	Total	% of females	% of males
Health Sciences	4917	6738	11655	42,2	57,8
Engineering Sciences	205	11889	12094	1,7	98,3
Educational Sciences	173565	34010	207575	83,6	16,4
Agricultural Sciences	1471	3129	4600	32	68
Natural Sciences	11601	16849	28450	40,8	59,2
Business and Economics	15385	14543	29928	51,4	48,6
Social Studies	5268	11574	16842	31,3	68,7
Islamic Studies	6135	21829	27964	21,9	78,1
Humanities Studies	14686	20998	35684	41,2	58,8
Law	0	888	888	0	100
Others	0	1708	1708	0	100
Total	233233	144155	377388	61,8	38,2

Source: HE Statistics in KSA, academic year 2000 -2001, no 24

c. For the year 2003- 2004

Field of study	Females	Males	Total	% of females	% of males
Health Sciences	8634	13118	21752	39,7	60,3
Architectural and Civil Engineering	190	4857	5047	3,8	96,2
Other Engineering Sciences	0	8023	8471	0	100
Educational Sciences	173698	45628	219326	79,1	20,9
Computer Science	9890	14622	24512	40,3	59,7
Manufacturing and Productive Industries	2857	0	2857	100	0
Agricultural Sciences	0	1320	1320	0	100
Veterinary Medicine	0	756	756	0	100
Natural Sciences	25864	11845	37709	68,6	31,4
Management Sciences and Economics	24262	28582	52844	45,9	54,1
Journalism and Media	3898	12911	16809	23,1	76,9
Social Sciences	9979	6623	16602	60,1	39,9
Islamic Studies	20417	40429	60846	33,6	66,4
Humanities Studies	42508	23151	65659	64,7	35,3
Law	0	227	227	0	100
Other	3489	1504	4993	69,9	30,1
Total	325686	213596	539282	60,4	39,6

Source: HE Statistics in KSA, academic year 2003 - 2004, no 27

The number of male and female students enrolled at Diploma level³ has developed from 1999-2000 to 2004 - 2005 in KSA. However, the percentage of female students decreased by 40% from 1999 till 2005 due to the decision of the General Division for Girls' Education to upgrade Intermediate colleges and allow them to grant Bachelor degrees instead of Diplomas.

³ The Diploma is a two years study open to holders of a Secondary degree, or a degree from secondary teachers institutes.

Figure 1: Students enrolled at Diploma level (from 1999/ 2000 to 2004/ 2005)

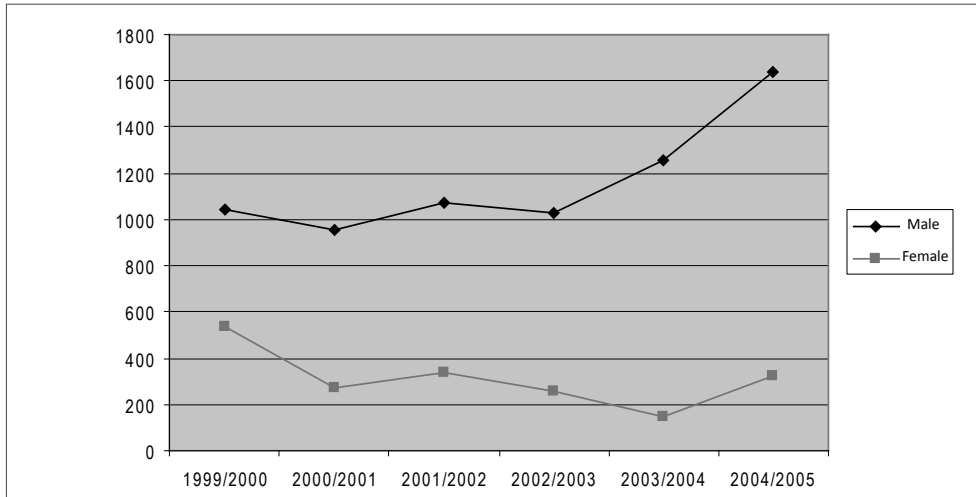
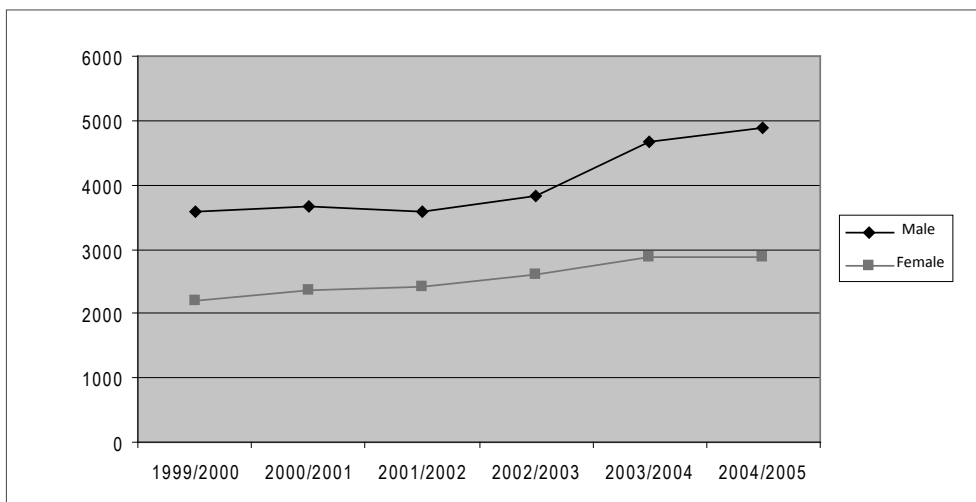


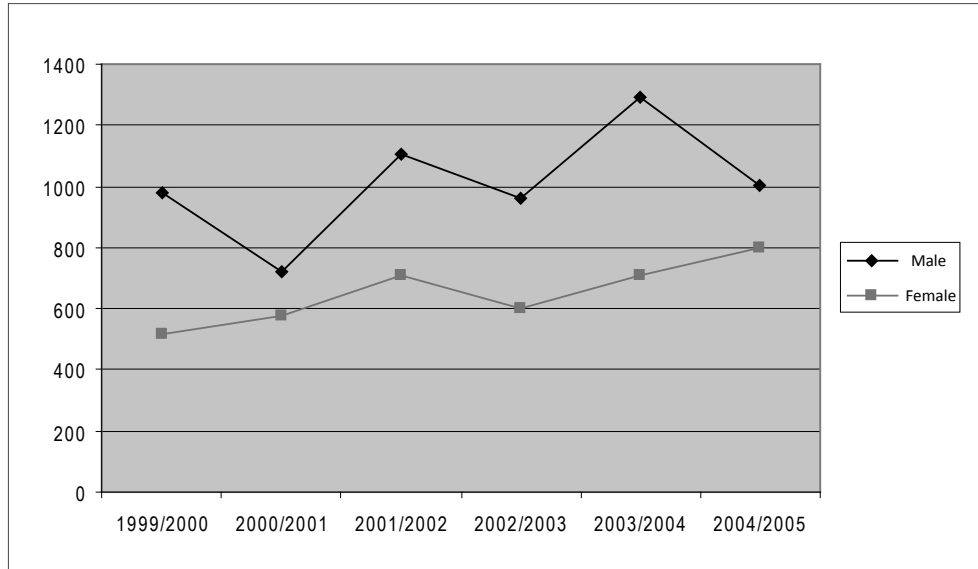
Figure 2 shows the development of the number of male and female students enrolled at Master level in KSA from 1999 - 2000 to 2004 - 2005. The number of female students increased from 2,188 to 2,883, a 31,8% increase.

Figure 2: Students enrolled at Master level (from 1999 /2000 to 2004/ 2005)



In addition, the number of male and female students enrolled at PhD level in KSA has developed from 1999- 2000 to 2004 -2005 as shown in Figure 3.

Figure 3: Students enrolled at PhD level (from 1999 /2000 to 2004 /2005)



Since the beginnings, the state has offered opportunities of scholarships and international studies for both male and female students who comply with scholarship conditions. It has also recently adopted the Custodian of the Two Holy Mosques King Abdullah bin Abdul-Aziz Scholarship Program which is considered the largest scholarship program. Its budget is ten billion riyals and the number of students of both sexes that were granted scholarships through this program reached 420,000 students. 6,000 of these scholarships were allocated to specific governmental bodies. This program aims at achieving an outstanding quality for international HE output in scientific and applied majors that are related to development needs. Scholarship beneficiaries are sent to prestigious universities in a number of developed countries such as: the United States of America, Canada, Australia, New Zealand, France, Japan, China, India, Singapore, and South Korea to obtain Bachelor degrees, Master's degrees, PhDs, and fellowships in Medicine, Dentistry, Pharmacy, Nursing, Engineering, Computer Science, Accounting and Law.

III. Women and the problems of the Saudi labor market

The relationship between the output of HE in terms of females and the needs of the labor market cannot be studied without observing the social and cultural context of this relationship, as there are two major issues in that context. The first one is related to the participation of women in the Saudi labor market, and the cultural, organizational and social challenges and constraints they face. The second issue is related to the Saudi labor market, its nature, the opportunities available in it, as well as the identification of its needs and the forces that influence it.

As a preliminary step towards discussing this problem, it is indispensable to shed light on the demographic composition of Saudi society and the nature of women's work, as well as the structure of the labor market. In fact, statistical reports indicate that the total population in Saudi Arabia has tripled between 1975 and 2005 to reach 23.6 million people, and this number is expected to grow to 29.3 million by 2015. The examination of the demographic trends shows

that that the rate of annual population growth was 3.9% between 1975 and 2005; however, it is expected to drop to 2.1% during the period between 2005 and 2015. As for the urban population, it has jumped from 58.3% to 81% during the period from 1975 to 2005, and it is expected to reach 83.2% by 2015 (Human Development Report, 2007).

In the mid-nineties KSA started facing the problems in securing employment for the increasing number of graduates of both sexes, as a consequence of the large increase in population. This increase is actually due to the growth of the number of births in the late seventies and early eighties in parallel with the rise in incomes and the availability of housing finance and housing loans during the economic boom of 1978 - 1985 (Al Eqtisadiyah newspaper, 2006)

The Saudi market includes the government sector and the private sector. It is noted that the government sector represents the largest area for the absorption of female Saudi workers, while their absorption in the private sector remains minor.

Saudi women have entered the work force in the government sector since the establishment of the General Division for Girls' Education in 1960 and their appearance in the records of the General Bureau of Civil Service. However, the organizational structure did not include female workers. Employment applications of women were submitted to this Bureau, but due to the increasing number of applicants and graduates, it was necessary to establish women's sections in that Bureau to assume the responsibility of completing the necessary procedures for women's employment.

The sector of Education includes the largest proportion of females participating in the governmental labor market. This proportion reached around 87.6% in 2002 of the total number of women working in the government sector. This was followed by those employed at several public sectors (5.81%), then that of women working in the health domain (4.9%), and finally the female faculty members (1.6%). (Al Mashouh).

Given that the government sector is saturated with female employees, the recruitment of female graduates in that sector has been decreasing year after year. In 2006, "Al-Eqtisadia" newspaper indicated that the number of female applicants for teaching posts in KSA reached 73.5 thousand while the total number of available posts was 7.71 thousand, according to the records of the Ministry of Civil Service. Thus, 89% of applicants to job posts will not find a job, which constitutes a burden on the labor market.

According to the job classification of the Ministry of Civil Service, the job opportunities available for Saudi women with HE degrees are concentrated in medical assistance occupations (X-ray, Laboratory, Physiotherapy, Dental and Nursing). This Ministry has also created other new positions that were not available before for the recruitment of women: in the Ministry of Foreign Affairs, the Ministry of Health, the Saudi Red Crescent, the General Directorate of Passports, and the General Organization for Social Insurance. A number of new posts were actually created in some of these institutions. (Al Mashouh)

During the last 15 years, employment policies in KSA tended to charge the private sector with the major responsibility of providing job opportunities due to the saturation of the majority of government sectors. However, the proportion of women's participation in the labor market in the private sector, which suffers from a large number of foreign workers, is still very minor. This is due to several reasons such as:

1. The delayed attention given to the training of female workers for the appropriate occupations.
2. The lack of training capacities in terms of training bodies, curricula, and level, necessary to respond to labor market needs.

3. The severe shortage of labor market services due to the absence of data and accurate information about available vacant positions.
4. The limited scope for women work areas and the inadequacy of the offer in Saudi woman qualification and experience to the demand of the private sector .
5. The high costs of Saudi workers and their low acceptance of the conditions and the work system in the private sector.
6. The modest employment opportunities available to women in the private sector. "These are employee replacement opportunities, and belong mostly to educational, health and the social jobs". (Al Eqtisadiyah newspaper, 2006, p.28).

According to statistics from the Council of Labor Force for the year 2001 - 2002, the number of female workers in private business with more than 20 female workers, is very low since it does not exceed 11,905 workers overall. This number represents 5.3% of the total number of the Saudi female labor force. (Al Mashouh).

Many reports confirm the insignificant contribution of Saudi women to the labor market and to public life compared to their total number which constitutes nearly half the Saudi population. For example, the Riyadh Chamber of Commerce and Industry examined the contribution of Saudi women to the labor market from 1983 to 1999, and demonstrated the horrific waste of human resources in national development. The percentage of active women ranged between 2.6% and 2.9% of the total Saudi working-age population, and between 5.1% and 5.8% of Saudi working-age female population, which means that it has increased by less than 1% during 15 years. This percentage is low compared to the contribution of women around the world (between 14% and 40%), and the contribution of women in the Gulf Cooperation Council that has reached an average of 15%. (Center for Research and Studies in the Chamber of Commerce and Industry, 1999).

In recent years, there has been a growing interest in employment for women within the Saudi society, and the search for work areas that are consistent with Saudi women's social, cultural and religious characteristics, as these are among the matters that affect the attention of state officials at all levels. In fact, the Council of Ministers called for the widening of women's work areas, and the issuance of licenses allowing women to practice economic activities, and the establishment of units and sections for women in government departments. Moreover, the Shura Council called for a comprehensive national strategy for education in 2004 that addressed the expansion of education, work and training areas for Saudi women in a way that suits their nature and does not conflict with the Islamic Shari'a. This could be accomplished by restructuring HE, formulating curricula oriented to the specializations needed in the labor market, expanding the program of the Human Resources Development Fund, and benefiting from Information Technology to widen the areas of distance work for women.

Perhaps the most important point that we can deduce from the analysis of the previous data is that participation of women in the labor market should be widened, by enlarging the scope of work fields opened to them, by preparing them for this participation in educational and training institutions, and by promulgating legislation and regulations that expand women's participation. This is especially relevant as the political position of the state is clear and it stresses on equality and on the right of work for citizens of both sexes.

An examination of the five-year development plans shows that the importance of human development was not overlooked despite the significant reliance of the majority of these plans on foreign workers. These plans have focused on highlighting the role of women in the Saudi labor market and on underlining the need to ensure broader fields of work for them and to search for several alternatives in which women's potentials can be oriented. On the other hand,

educational authorities, in both general and higher education, have considered to provide educational opportunity for all girls and the majors that are suitable to them (Al Bakr, 1996). After analyzing many local and global statistics, Al Shemiry (2002) thinks that the percentage of unemployment for women in KSA is large and it implies economic and social problems that society must be aware of. The researcher also confirms in his study that the inability of the society to broaden women's work areas is due to several reasons. The most important one is that a faction of the population does not accept the contribution of women to the labor market, and this section, through its legally unjustifiable pressures, affects other larger sections of society that were also still reluctant to accept women working. The other reasons reside in labor systems and their incompatibility with working women, and also in the lack of transportation services and nurseries. Thus, the researcher deduced the importance of considering women's work as to the decision of the Islamic authority and to the nature and the degree of the need for women's work. In a field study conducted in the city of Riyadh, concerning the motivations of Saudi women towards work and the problems they encounter, Al Nemr (1989) concluded on the presence of a combination of factors affecting women's participation in development, as well as a number of obstacles influencing the scanty weak participation of women. The main obstacle is possibly the difficulty of providing transportation services, in addition to the lack of the public's appreciation for the contribution of women in the workforce. Al-Nemr explained this by saying that there is a cautious acceptance by society of women's work outside the home, as well as the difficulty that women face in balancing between work and household duties, and this may be due to the labor systems.

As for Al-Husseini (1992), the study indicated that new areas of work for Saudi women can be available through the establishment of women's factories run by women, or through their participation in the administrative activities in the bodies that need women's services such as courts, municipalities, notaries, or in commercial activities, in computer and research centers, hospitals, medical test laboratories and ministries. The study also showed that both men and women agree that working women should not mix men.

In a field study conducted on women working in various government departments in the cities of Jeddah and Mecca, focusing on the obstacles standing in the way of women's work, Halawani (2000) concluded that there are 6 obstacles facing women's work. The main ones being: the fact that supervisors are men, the internal work environment, family obligations, as well as some general constraints such as the limited available areas of work.

Researchers in the structure of the Saudi labor market are aware that this market suffers from a number of problems that are not related to the lack of university graduates of both sexes in most market areas, but rather to the influences, forces and interests that control job Saudization and the expansion of capital and investment projects. This led to the limited areas of work and the emergence of a significant unemployment rate among female workers, many of whom do not find a job consistent with the customs and traditions of Saudi society. Consequently, these women are obliged to stay at home or to work in a field that is not related to their majors. In both cases, the usefulness of women's educational background decreases, as well as the opportunities to benefit from their capabilities and capacities (Al Nemr, 1989).

Other reports and studies also confirmed the existence of problems related to the educational system, the academic curricula and the labor market structure that aggravated the problem of employability. One of these studies is that of Khattab (1998) in which he indicated that the academic curricula are still inculcating the traditional roles of women which resulted in disseminating feelings of fear, distrust and skepticism concerning joining applied majors due to

the sensitivity of woman's situation in a society governed by customs and traditions. He also indicated that the admission of women to universities for scientific majors is limited. Also, a study on saudization and job opportunities prepared by the Center for Research and Studies in Riyadh Chamber of Commerce and Industry, underlined that the most important reasons for the low contribution of women to the labor market is the incompatibility between the majors of female graduates and labor market needs. In fact, enrolment in theoretical major is prevailing, for female who are already enrolled as well as for those who will be enrolled in the future. The study shows that the number of female graduates increased at an annual rate of 5.17% between 1993 and 2000. In addition, the sixth Development Plan showed that female graduates in Islamic Studies and Social Sciences represent 57.5% of the total number of female HE graduates who newly joined the labor market in 2000.

IV. Policies adopted by the Ministry of HE to achieve employability

The KSA understood that it must face the problem of employability through a holistic plan that is not limited to a specific institution or a sector. For this reason, the Council of Ministers decided to form a ministerial committee composed of the relevant ministries in order to study the issue in a comprehensive way and to suggest detailed recommendations accompanied by a working mechanism for each of the concerned sectors. The Council of Ministers approved these recommendations. Some of them are related to HE and are listed below.

1. Recommendations concerning HE

- a. Orient the admission to HEIs towards the majors needed in the labor market, and to include in the curricula of university colleges all the basic skills and modern techniques required in the labor market.
- b. Revise the programs of Education Colleges as well as teacher training colleges of both sexes to make them compatible with labor market requirements.
- c. Accelerate the adoption of new study options in HE such as E-Education, distance education, partial attendance regulation, evening education, enrollment and to work on the quality of output.
- d. Continue encouraging the private sector to establish private colleges in various regions of the Kingdom, taking into consideration the comparative advantage of the economic and environmental activities in order to meet labor market needs in these regions.
- e. Increase the expenditure on HE in line with the number of students expected to be admitted to HEIs. In addition to enhancing cost efficiency and the use of financial resources.
- f. Examine the ways of rationalizing the costs of university education and identify the appropriate means to achieve this.
- g. Prepare a long-term plan (25 years) under the supervision of the HE Council to identify the needs of post-secondary education, its types, the quality of its output and the methods of financing it.
- h. Prepare a study, under the supervision of the HE Council, aimed at identifying the input of girls' HE, its output, its curricula, and its processes in order to achieve development requirements and meet labor market needs.
- i. Diversify the resources of HE through the individual efforts of universities such as: concluding cost-driven contracts in the areas of training, community service and

- continuing education programs, and rehabilitation programs; and accepting in-kind and financial contributions from individuals and private sector institutions.
- j. Consider the establishment of a joint cooperative program between the Ministry of Education, the Ministry of HE, and the Ministry of Civil Service in order to fill the teaching posts.
 - k. Review the applied educational system and select the best system (hour system, semester system, annual system).
 - l. Prepare an action program that includes a timetable for the implementation of the abovementioned recommendations

2. Mechanisms for implementing recommendations related to HEIs:

- a. The National Commission for Academic Accreditation & Assessment (NCAAA) undertakes the task of assessing and developing educational programs, and adopting the appropriate majors for the labor market.
- b. The Ministry of HE, the Ministry of Education, the General Organization for Technical Education and Vocational Training, the Public Administration Institute should intensify rehabilitation programs for graduates of both sexes whose majors are incompatible with labor market needs.
- c. The HE institutions include in their curricula the basic skills required in the labor market.
- d. The Council of Ministers Decree No. 87 of 17 /6 /2002 regarding the provision of loans and subsidies for the private HE sector should be implemented in an accelerated way.
- e. The Council of HE develops a formula based on accurate statistical data as a support for HE, which is compatible with the increasing number of enrollments in HEIs.
- f. The deans of students affairs and academic orientation in HEIs prepare, in coordination with the Council for Chambers of Commerce and Industry, integrated programs that prepare students to enter the labor market.

3. Efforts by the Ministry of HE to ensure the employability of HE graduates

During the last six years, the Ministry of HE started to implement a plan aimed at making a rapid and major change in the structure of HE in universities. The following are the main aspects of this change:

- a. This period has witnessed a quantitative and qualitative expansion of universities: 12 governmental universities were established, and all their colleges are specialized in Applied Sciences which include various majors such as Health Sciences (Medicine, Dentistry, Pharmacy, Applied Medical Sciences and Nursing) as well as Colleges of Engineering, Computer Science, and Business administration. Thus, the total number of governmental universities supervised by the Ministry of HE became 20. In addition, University colleges were established in more than 77 provinces, therefore, the total number of colleges reached 44 in which around 700 000 students of both sexes are enrolled. As a result of this expansion in universities, the number of colleges has increased as shown in Table 2.

These colleges were provided with the financial resources needed for installation and equipment, and the needed human resources both administrative staff and faculty.

- b. This period also witnessed the expansion of private HE: 7 private universities were established, as well as 17 private university colleges. More than 100 preliminary permits for the establishment of new private colleges were delivered.

Table 2: Growth rates in universities and colleges supervised by the Ministry of HE

Unit	2003 Number	2009 Number	Growth rate
Governmental Universities	8	20	150%
University Colleges	199	440	121%
Colleges of Medicine	7	21	200%
Colleges of Dentistry	3	12	300%
Colleges of Pharmacy	3	15	400%
Colleges of Applied Medical Sciences	3	29	867%
Nursing Colleges	0	5	
Health Colleges and Institutes	0	50	
Colleges of Engineering	7	32	357%
Colleges of Sciences	7	28	300%
Colleges of Computer Science	3	21	600%
Community Colleges	20	46	130%
Teaching Hospitals (included in the budget of the universities)	3	12	300%
Private Universities	1	6	500%
Private Colleges	4	40	900%
New Students in governmental and private universities and colleges*	67,855	201,053	196%
New Students enrolled in all HE institutions*	136,723	205,813	51%

* For the year 2008/ 2009

Source: HE Center for Research and Studies (2009) **Growth Indicators in HE**, under publication: Al-Riyadh

The most important result of the abovementioned expansion in governmental and private universities was the increase in admission to universities from 68,000 in 2003 to 201,053 in 2008, It was a 196% increase. It is to be noted that this quantitative expansion was accompanied by the spread of university education in various regions and provinces of the Kingdom and by the availability of university education opportunities for all students in their regions in conformity with the Development plans.

It is also to be noted that, until recently, employability was not a problem given that the country was in urgent need for all the graduates of university education in all specializations. But, with the implementation of successive development plans and the increase of the number of university graduates, the labor market became gradually saturated with some specializations and therefore the problem was aggravated year after year. It was clear for the stakeholders in HE that it is difficult to change the structure of the programs and majors in a short period of time. For that reason, the Ministry adopted a plan comprising important policies in order to attain larger employability rates. Some of

these policies are listed below:

- 1) The restructuring of colleges, programs and majors which includes the following procedures that are carried out according to labor market needs: reduce admission in some departments, merge existing departments, separate some departments, convert some of them into colleges, limit some departments to post-graduate studies, or eliminate some of them. The trend towards restructuring the majors is clearly shown in King Khaled University. This university was composed of two branches: King Saud University and Imam Mohammed Ben Saoud Islamic University. After a number of restructuring decisions, the percentage of students admitted for the first semester of this year in market-oriented majors was 82.73%. At Qassim University, the admission to a number of departments such as Geography, History and Sociology was stopped and the admission to other majors was rationalized. Thus, the percentage of admissions to market-oriented majors reached 83.58%. At King Faisal University, admission to the following majors was stopped: the Department of Economics and Agricultural Extension, the Department of Agricultural Biotechnology, the Department of Agricultural Systems Engineering, and the Department of Home Economics Education. In addition, all the departments of the College of Agricultural and Food Sciences were restructured through merging or separating the majors. Thus, the proportion of students admitted for the first semester reached 80.63% for boys and 66.25% for girls according to Table 3.

Table 3: Percentages of students admitted to governmental and private universities and colleges affiliated to the Ministry of HE, for the first semester of the 2006 - 2007 academic year, classified according to the relation between the major and the labor market

University	Males			Females			Total		
	Total number of admitted students	Market-oriented majors (%)	Majors slightly related to the labor market (%)	Total number of admitted students	Market-oriented majors (%)	Majors slightly related to the labor market (%)	Total number of admitted students	Market-oriented majors (%)	Majors slightly related to the labor market (%)
University Umm Al-Qura	5 523	75,39	24,61	3 173	51,65	48,35	8 696	66,73	33,27
Islamic University	642	51,40	48,60				642	51,40	48,60
Al-Imam Mohamed Ibn Saud Islamic University	4 317	67,27	32,73	1 390	68,99	31,01	5 707	67,69	32,31
King Saud University	8 907	77,79	22,21	4 109	64,81	35,19	13 016	73,69	26,31
King Abdul-Aziz University	5 860	75,00	25,00	3 428	45,65	54,35	9 288	64,17	35,83

King Fahd University of Petroleum & Minerals	2 687	100,00	0,00				2 687	100,00	0,00
King Faisal University	1 812	80,63	19,37	1 917	66,25	33,75	3 729	73,24	26,76
King Khaled University	3 758	84,51	15,49	394	65,74	34,26	4 152	82,73	17,27
Qassim University	3 785	82,17	17,83	326	100,00	0,00	4 111	83,58	16,42
Taibah University	1 798	94,38	5,62	1 420	94,51	5,49	3 218	94,44	5,56
Al-Jouf University	3 419	100,00	0,00	113	100,00	0,00	3 532	100,00	0,00
University of Ha'il	618	100,00	0,00	490	100,00	0,00	1 108	100,00	0,00
Jazam University	603	100,00	0,00				603	100,00	0,00
Taef University	1 566	77,52	22,48	1 939	68,85	31,15	3 505	72,72	27,28
King Abdul-Aziz University for Health Sciences	30	100,00	0,00	125	100,00	0,00	155	100,00	0,00
Scholarship students among high school graduates	4 960	100,00	0,00	247	100,00	0,00	5 207	100,00	0,00
Private universities and colleges	9 220	100,00	0,00	3 551	100,00	0,00	12 771	100,00	0,00

Source: Center for HE Research and Studies (2008) Achievements of the Ministry of HE. Al-Riyadh

- 2) Opening new colleges and departments that offer only the majors required by the labor market such as Medical and Engineering majors, Computer Science, Information Technology, and Natural Sciences. In fact, in all 104 colleges that were opened recently, the majors are directly related to labor market needs. Thus, the proportion of admissions for the first semester in 2006 - 2007 to market-oriented majors has increased to 85% for male students and 70% for female students as shown in Table 4. In more details, it is to be noticed that, in the same year, the proportion of admitted students to market-oriented majors has reached 100% in 5 governmental universities, 2 private ones and 17 private colleges, and for all scholarship beneficiaries outside KSA. The proportion of admissions to market-oriented majors varied in other universities.
- 3) Expansion of Community Colleges. Their philosophy is based on the importance of HE program diversification to ensure a qualified workforce to meet the needs of society and carry out development plans. In fact, Community Colleges prepare secondary school graduates to enter the labor market in productive areas through rehabilitation programs. They also promote the acquisition of skills through training programs. This contributes to providing the labor market with much needed intermediate skills. In addition, these colleges provide the opportunity to complete a university education according to transitional programs for outstanding students.

Table 4: Statistical summary of the number of students admitted to governmental and private universities and colleges affiliated to the Ministry of HE, for the first semester 2006- 2007 classified according to the relation between the major and the labor market.

Total	Males				Females				Total			
	59505				22622				82127			
82127	Market-oriented majors		Majors slightly related to the labor market		Market-oriented majors		Majors slightly related to the labor market		Market-oriented majors		Majors slightly related to the labor market	
	N	%	N	%	N	%	N	%	N	%	N	%
	50917	85,57	8588	14,43	15884	70,21	6738	29,79	66801	81,34	15326	18,66

Source: Center for HE Research and Studies (2008.), Achievements of the Ministry of HE. Al-Riyadh

- 4) The King Abdullah bin Abdul-Aziz Scholarship Program is considered as a major program aimed at achieving employability of HE graduates, as it is restricted to scholarships for Applied Science majors that are related to development needs.
- 5) After the decision of the Council of Ministers to separate 18 Teacher training Colleges and 102 Girls' Colleges from the Ministry of Education and affiliate them to universities, the Council of HE decided to entrust the Boards of Universities with conducting in-depth studies on the restructuring of the colleges related to these universities and submit recommendations to the HE Council. This Council decided, after considering the recommendations, to establish a committee at the level of directors of the Ministries of Finance, Civil Service, Education, Economy and Planning, Labor, and HE. The committee was in charge of preparing an in-depth study on these recommendations based on the visions of universities and their perceptions regarding the restructuring process, in light of development considerations and the national needs for appropriately qualified now and in the future, and also in light of the contents of the relevant national development plans. The universities took into consideration the plan of the Ministry of Education for the coming years (2004 - 2014) regarding the need for male and female teachers for basic education and for all the majors. They also identified the needs for the private sector by communicating with its institutions and the relevant sectors. The recommendations focused on the restructuring of 98 colleges to become 97 new colleges in which 573 scientific departments were restructured to become 672. The restructuring process aimed also at making these colleges compatible with labor market needs and able to meet national needs for human resources in all development majors. Although these efforts were not limited to university education for girls and they involved both sexes, many of them directly affect the restructuring of the available majors for women and aim at making a quantum leap in their future employability.

4. Outcomes of the employability efforts through statistical comparisons

The efforts of the Ministry regarding employability are illustrated by the trend to increase the majors that are obviously market-oriented and reduce the majors which are only slightly

demanded in the labor market. This will be demonstrated through statistical comparison. A number of indicators demonstrate the outcomes of the policies adopted by the Ministry aimed at increasing the number of students in majors highly demanded in the labor market and to reduce the number of students in majors slightly demanded in the labor market. The comparison was conducted for the period between 2002 and 2007. It should be noted that this comparison was made on HEIs affiliated to the Ministry of HE (governmental universities - private universities and colleges). To illustrate this development, the comparison was conducted on the growth of the number of admitted students and the number of enrolled students. Table 5 shows the growth rates of the number of students admitted to universities and institutions affiliated to the Ministry of HE. In fact, this rate has reached around 30% for secondary school graduates from 2002 to 2007. Also, the percentage of admission to universities has increased by 48% whereas the percentage of admission to Teacher Colleges and Girls' Colleges decreased by nearly 35%. The same table also illustrates the percentage of students in majors slightly related to the labor market. The proportion of students in Islamic Studies dropped by 34%, the proportion of students in Social Sciences decreased by 12%, and the proportion of students admitted to the major of Education also dropped by 7.27%.

Table 5 also shows the increase in the proportion of students admitted to majors whose output is related to labor market needs: some of the Arts and Human Sciences majors such as Arabic language and other languages, Economics and Business, Natural Science, Engineering Science, Computer Science and Computer Engineering, Medicine and Dentistry, Applied Medical Science and Pharmacy, Languages and Translation as well as other professional and applied majors.

In general, the number of students admitted to employable majors in university colleges (except for Teacher Colleges and Girls' Colleges) has increased by approximately 72% whereas the number of students admitted to majors slightly related to the labor market decreased by 23% compared to their number in 2002 / 2003.

As for Table 6, it shows the growth rates of the number of students enrolled in universities and institutions affiliated to the Ministry of HE between 2002 / 2003 and 2006 / 2007. In fact, the overall number of students enrolled in universities has increased by 71% and there is also an increase in the number of students enrolled in market-oriented majors such as: some of the Arts and Human Science majors such as Arabic language and other languages, Economics and Business, Agricultural and Veterinary Science, Natural Science, Engineering Science, Computer Science and Computer Engineering, Medicine and Dentistry, Applied Medical Science and Pharmacy, Languages and Translation as well as other professional and applied majors.

In general, the number of students enrolled in market-oriented majors in university colleges (except for Teacher Colleges and Girls' Colleges) has increased by approximately 99% in 2006 /2007 whereas the number of students enrolled in majors slightly related to the labor market decreased by 9% compared to their number in 2002 /2003.

Table 5: Comparison of the numbers of admitted students between 2002 and 2006

Discipline	Admitted students (2002/2003.)			Admitted students (2006/2007.)			Growth rates			Employability
	Male students	Female students	Total	Male students	Female students	Total	Male students	Female students	Total	

Islamic Studies	7962	1976	9938	5286	1297	6583	-33,61%	-34,36%	-33,76%	Majors slightly related to the labor market
Human Sciences	7583	2783	10366	10765	4887	15652	41,96%	75,60%	50,99%	Market-oriented majors
Social Sciences	1193	833	2026	1105	679	1784	-7,38%	-18,49%	-11,94%	Majors slightly related to the labor market
Education	2391	3005	5396	2172	2831	5004	-9,16%	-5,79%	-7,26%	Majors slightly related to the labor market
Economics and Business	3252	1742	5094	11848	4480	16328	253,46%	157,18%	220,53%	Market-oriented majors
Agricultural and Veterinary Sciences	1771	403	2174	1780	467	2246	0,51%	15,88%	3,31%	Market-oriented majors
Natural Sciences	5118	3317	8435	8016	3159	11175	56,62%	-4,76%	32,48%	Market-oriented majors
Engineering Sciences	2397	35	2432	3771	39	3810	57,32%	11,43%	56,66%	Market-oriented majors
Computer Sciences and Computer Engineering	854	696	1550	1955	889	2844	128,92%	27,73%	83,48%	Market-oriented majors
Medicine and Dentistry	1432	754	2186	1919	1145	3063	34,01%	51,86%	40,12%	Market-oriented majors
Applied Medical Sciences and Pharmacy	331	211	542	1791	1552	3343	441,09%	635,55%	516,79%	Market-oriented majors
Languages and Translation	920	384	1304	1364	602	1966	48,26%	56,77%	50,77%	Market-oriented majors
Other (Community, Intermediate Diploma...)	11923	3933	15856	19807	5698	25505	66,12%	44,88%	60,85%	Market-oriented majors
Total	47227	20072	67299	71579	27725	99303	51,56%	38,13%	47,55%	Market-oriented majors
Teachers Colleges and Girls' Colleges	9005	108619	117624	3256	73666	76922	-63,84%	-32,18%	-34,60%	Majors slightly related to the labor market
Total (overall)	56232	128691	184923	74835	101391	176225	33,08%	-21,21%	-4,70%	

Market-oriented majors (without Teachers Colleges and Girls' Colleges)	35681	14258	49939	63016	22918	85932	76,61%	60,74%	72,07%	
	75,55%	71,03%	74,20%	88,04%	82,66%	86,54%				
Majors slightly related to the labor market (without Teachers Colleges and Girls' Colleges)	11546	5814	17360	5863	4807	13371	-25,84%	-17,32%	-22,99%	
	24,45%	28,97%	25,80%	11,96%	17,34%	13,46%				
Market-oriented majors (including Teachers Colleges and Girls' Colleges)	35681	14258	49939	63016	22918	85932				
	63,45%	11,08%	27,01%	84,21%	22,60%	48,76%				
Majors slightly related to the labor market (including Teachers Colleges and Girls' Colleges)	20551	114433	134984	11819	78473	90293				
	36,55%	88,92%	72,99%	15,79%	77,40%	51,24%				

Source: Center for HE Research and Studies (2008), Achievements of the Ministry of HE, Al-Riyadh

Table 6: Comparison of the numbers of enrolled students between 1423 and 1427 AH

Discipline	Admitted students (1423-1424 AH.)			Admitted students 1427-1428 AH.)			Growth rates			Employability
	Male students	Female students	Total	Male students	Female students	Total	Male students	Female students	Total	
Islamic Studies	19648	5371	25019	26234	11065	37299	33,52%	106,01%	49,08%	Majors slightly related to the labor market

Human Sciences	23276	10039	33315	23749	16829	40578	2,03%	67,63%	21,80%	Market-oriented majors
Social Sciences	8960	6456	15416	2298	3793	6091	-74,35%	-41,25%	-60,49%	Majors slightly related to the labor market
Education	12214	12610	24824	12113	15880	27993	-0,83%	25,93%	12,77%	Majors slightly related to the labor market
Economics and Business	15791	9213	25004	17402	14802	32204	10,20%	60,67%	28,80%	Market-oriented majors
Agricultural and Veterinary Sciences	3335	497	3832	6025	2698	8723	80,66%	442,86%	127,64%	Market-oriented majors
Natural Sciences	13389	9039	22428	37959	23205	61164	183,51%	156,72%	172,71%	Market-oriented majors
Engineering Sciences	13374	197	13571	19884	333	20217	48,68%	68,83%	48,97%	Market-oriented majors
Computer Science and Computer Engineering	8385	4023	12408	11351	3934	15285	35,37%	-2,22%	23,19%	Market-oriented majors
Medicine and Dentistry	4697	2790	7487	6895	3776	10671	46,80%	35,34%	42,53%	Market-oriented majors
Applied Medical Sciences and Pharmacy	4703	3567	8270	6460	7392	13852	37,36%	107,23%	67,50%	Market-oriented majors
Languages and Translation	2483	1467	3950	4710	4743	9453	89,67%	223,31%	139,30%	Market-oriented majors
Other (Community, Intermediate Diploma...)	12515	4564	17079	48001	32920	80921	283,55%	621,30%	373,80%	Market-oriented majors
Total	142770	69833	212603	223081	141370	364451	56,25%	102,44%	71,42%	
Teachers Colleges and Girls' Colleges	29989	214666	244655	35110	227470	262580	17,08%	5,96%	7,33%	Majors slightly related to the labor market



Total (overall)	172759	284499	457258	258191	368840	627030	49,45%	29,65%	37,13%	
Market-oriented majors (without Teachers Colleges and Girls' Colleges)	101948	45396	147344	182436	110632	293068	78,95%	143,70%	98,90%	
Majors slightly related to the labor market (without Teachers Colleges and Girls' Colleges)	40822	24437	65259	40645	30738	71383	-0,43%	25,78%	9,38%	
Market-oriented majors (including Teachers Colleges and Girls' Colleges)	101948	45396	147344	182436	110632	293068				
Majors slightly related to the labor market (including Teachers Colleges and Girls' Colleges)	70811	239103	309914	75755	258208	333963				

Source: Center for HE Research and Studies (2008), Achievements of the Ministry of HE. Al-Riyadh

V. The future of employability for the female university graduates

The two tables show that there is an annual increase in the participation of women in the labor force in KSA and that the public sector is the major employer for more than 90% of the total number of working women, while the remaining 10% are employed by other sectors. Hence, efforts aimed at enhancing the employability of female university graduates should focus more on the private sector, while creating new opportunities in the government sector. It is also evident that there are policies and strategies adopted by HEIs that have started to show concrete results in achieving employability.

In order to achieve better results in the field of employability, the following recommendations are suggested:

1. Continue the restructuring of girls' HE in conformity with their characteristics and with the labor market requirements that must be identified every 5 years.
2. Expand the field of education, training, and employment for Saudi women in compliance



- with their nature and without violating the principles of the Shar'ia.
3. Expand vocational, technical and legal education for girls.
 4. Urge the Labor Force Development Fund to establish programs for the training and employment of women.
 5. Expand university majors related to distance work such as technical majors, editing, writing reports, etc., given their consistency with the nature of women and with their roles in the family.
 6. Consider opening positions for women in the following areas: in the public and governmental bodies and institutions that offer services related to women; units or departments exclusively for women, particularly in the legal, industrial and medical fields; and in the areas of security, accounting, health and media.
 7. Increase the job opportunities available to Saudi women in the educational, medical, legal, and technical private sector and also in the media and information systems in the private sector.
 8. Provide women with soft loans for the implementation of investment projects.
 9. Develop and promote the idea of productive households and cottage industry to help women perform certain occupations in their homes, under the auspices of a public institution for productive households.
 10. Intensify professional guidance towards female students in secondary school to help them choose the majors needed in the labor market. This would be done through long-term planning that ensures the suitable output for the market requirements and then orients the female graduates toward them.
 11. Continue the expansion of Colleges of Medicine and Nursing and affiliate them to hospitals; increase Medical Science Colleges given that the Health sector has the capacity to absorb more females.
 12. Rehabilitate the graduates accumulating on waiting lists, according to the actual needs of the labor market.
 13. Involve women in the advisory committees concerned with the decisions affecting the status of women, so that these decisions take into consideration the reality of women.
 14. Open branches for women that can be extended and expanded all over the Kingdom.
 15. Review the regulatory procedures and modify them according to modern life changes, and to establish systems and regulations in the private sector aimed at reducing differences between public and private sectors in this regard.
 16. Establish data bases that contain qualitative information and allow for identifying the types of activities required by the labor market and to continually update them in view of the numerous and various advantages that can be brought to fruition at both the social and economic levels.

VI. Conclusion

This study attempted to shed light on the problem of employability of Saudi female HE graduates. It is known that HE issues are concentrated in the following four major domains:

1. Admission and capacity
2. Funding
3. Quality
4. Employability



It is also known that it is impossible to study each of these domains separately. Employability, for example, cannot be studied without a clear perception of the ability to ensure funding and to achieve the elements of quality, and of the volume of admission and capacity impacts.

The study also demonstrated that the relationship between the output of girls' HE and labor market needs cannot be examined without observing the social and cultural context of this relationship. It also demonstrates that the nature of the Saudi labor market requires the observation of the opportunities available in it, as well as the identification of its needs and the forces of influence in it.

The study focused on the efforts implemented by the Ministry of HE in order to achieve employability through many ways. It also illustrated the outcomes of these concrete efforts during the last few years. These outcomes represented clear evidence on the orientation of HE towards applied and scientific majors in parallel with a reduction in the majors with which the labor market is already saturated.

Given that employability is a problem from which many countries around the world suffer, this study was comprised of suggestions and recommendations aimed at achieving employability based on the study's findings, the reality of girls' HE and the problems facing the Saudi labor market.

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