

## The Reasons of Unemployment Related to Academic Qualification and Work Environment from the viewpoint of Students Expected to Graduate from King Saud University

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### Abstract

*The study used the survey method, based on the social survey of the sample. An intentional stratified sample of (196) individuals were chosen from the students expected to graduate from King Saud University. The questionnaire of the reasons of unemployment related to academic qualification and work environment was designed, from the viewpoint of students expected to graduate from King Saud University. It was applied to the study sample.*

*The study found that the four most important reasons for unemployment associated with academic qualification leading to high unemployment rates among graduates of higher education institutions from the viewpoint of students expected to graduate at King Saud University are: Failure to keep pace with academic programs for knowledge of knowledge economy, knowledge of the fourth industrial revolution, knowledge of entrepreneurship and knowledge of innovation.*

*As for the four most important reasons of unemployment associated with the work environment leading to high unemployment rates among graduates of higher education institutions from the viewpoint of students expected to graduate at King Saud University, are: The inability to implement the fourth industrial revolution applications in the work environment, not being able to use modern technologies and software in the work environment, the scarcity of work opportunities, and the lack of preference for national labor.*

*It was found that there were no significant differences at ( $\alpha \leq 0.01$ ) in the means of the responses of the sample subjects in the reasons of unemployment related to the axis of academic qualification and also the axis of the work environment according to the variable of the academic, health, scientific and humanitarian path.*

### Keywords

*Unemployment among graduates of universities, Academic Qualification, The fourth industrial revolution, Knowledge economy, Entrepreneurship and innovation.*

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## **Introduction**

Unemployment is one of the most prominent challenges facing graduates of higher education institutions. The most prominent reasons of this unemployment: The reasons related to the qualification of graduates of higher education institutions and the reasons related to the work environment, as the reasons associated with the qualification of the graduate are to study specializations not required by the labor market, either for the scarcity of job opportunities in that specialization or to satisfy that specialization of graduates. In addition to weak personal and cognitive skills or competencies of graduates of higher education institutions. Whereas, the reasons related to the work environment are embodied in the scarcity of job opportunities, either to occupy them with professional or low paid expatriate labor or because of the difficult working conditions, especially in some private sector institutions that require long working hours and difficult working conditions with an unpaid high financial return.

The leisure time has increased for young graduates of higher education institutions in the kingdom of Saudi Arabia due to the high unemployment rate among them. This may push some of these graduates to occupy their leisure time with what is harmful to them and their society, which directly affect security and societal peace, and then affecting the social contract and the set of regulation and laws in force in the country.

One of the most prominent reasons of unemployment among graduates of higher education institutions is poor actuarial planning for job needs, standards and controls with higher education pathways. In addition to the inferior view of many basic professions and trades, which requires attention in expanding the consolidation of technical, industrial and craft specializations at the expense of reducing the theoretical specialties in a way that suits the actual labor market need of these jobs, as well as the great care in developing educational and qualifying educational curricula in a manner consistent with the needs of the labor market and keeping pace with the accelerating global scientific and technological progress in parallel with raising the level and developing the skills, competencies and knowledge of those in charge of the educational learning process alike.

## **Theoretical background**

Among the most prominent types of compulsory unemployment that are evidenced by the presence of individuals who have the ability to work as well as the desire to work at

the prevailing wage level, but they don't find jobs and don't work, and therefore don't achieve any production (Sharif & Zarzar, 2013). With the multiplicity and different types of unemployment such as voluntary, frictional, structural, classical, regional, periodic, persuasive, behavioral and expatriate unemployment, all have a significant negative impact on human and economic development alike.

Among the most prominent variables that affect unemployment: raising the retirement age, poor economic performance, high wages, accelerated population growth, insufficient development efforts and the use of non – national manpower (Al – Shabaili and Abdul – Ubaidi, 2012). The universities focus on theoretical frameworks, leaving the practical aspects, not keeping up with educational planning to the needs of the labor market, the gap between theory and practice, and not keeping pace with the requirements of the times (Abu Zaid, 2010; Al – Zamil, 2011). Among the reasons of unemployment are also new economic policies, poor distribution of wealth and incomes, the nature of the inferior view of some business, widespread corruption, low productivity, population and economic growth rate, indicators of foreign trade and investment growth (Al – Qur'an & Mohammed, 2013). Also planning processes for transformational education and training programs aimed at facing future challenges for sustainable development that increase job opportunities for graduates (Hijazi, 2012; Al – Attar, 2004; El – Ashry, 2011; Abdul Wahab, 2011; Tawakul, 2005). In addition to the absence of the components for developing technological and productive art and the weakness of educational systems at different levels (Saleh, 2011). However, most of the graduates tend to hold the society and the other party the responsibility of success or failure to obtain a specific job (Aharchaw, 2011). As well as the inferior view of manual work among young people, the lack of social and professional skills they have, the lack of feasibility studies for small projects, the weakness of funding for young people, the lack of specialized professional training, the weakness of the culture of self – employment and the lack of interest of community leaders in the issue of youth unemployment (Al – Hashemi & Al – Sayed, 2009), and long working hours (Al – Harbi, 2016). In addition to the weak labor market resulting from the weak economy, the actual cause of unemployment for holders of degrees, and not the quantitative increase for university graduates (Ibn Gu, 2017).

Among the most prominent causes of unemployment associated with university qualification for graduates; the inconsistency of the educational policy with the requirements of economic growth and the incompatibility of the knowledge and the

skills required for graduates with the needs and requirements of the labor market (Al – Issa, 2016), and the acceptance of large numbers in specializations that have no need in the labor market (Damanhour, 2013; Al – Moajel, et.al. 2013), and weak English language skills (Badri, 2017; Al – Harbi, 2016; Damanhour, 2013) and weak computer and technical skills (Aref, et.al., 2018; Al – Issa, 2016; Al – Moajel, et.al., 2012), weak administrative and leadership skills and work – related communication skills (Aref, et.al., 2018; Badri, 2017), and the lack of development of educational curricula, the weak guidance of students to the specializations needed by the labor market, and the poor academic achievement of students.

Among the most important reasons of unemployment related to the work environment for graduates in higher education institutions in the Kingdom of Saudi Arabia are the following: Lack of adequate job opportunities for graduates, favoritism, the academic qualification the graduate holds is not appropriate for the available job opportunities (Al-Harbi,2016), low wages of employees (Badri,2017). As well as, competition with expatriate employees (Al-Murshid & Mahdi,2015) and the graduates' lack of practical experience that would enable them to perform the job assigned to them (Al-Harbi, 2016) ; (Damanhour, 2013).

One of the requirements of higher education institutions to establish the world's leading universities is to determine a mission and institutional vision that supports the strategic direction towards the future, in order to generalize knowledge and hold external partnerships with a view to financing (Gibb, 2013). Germany is working, to top the fields of production, to focus on innovation and creativity and attract the excellent in the institutions of higher education (Christian, et al, 2014). Hence, higher education institutions work to create and spread knowledge (Adriana & Hafedh, 2014; Sangeeta, 2015). Attracting talented people and spreading new ideas to enrich the cultural life associated with the economic environment in which they work (Adriana, & Hafedh, 2014). Therefore, it is imperative that the graduate possesses self – management skills, critical thinking and written skills (Hart, 2008).

The skills and experiences gained in education are reflected in all stages of the life of the graduate employee or the unemployed, and in a manner that achieves the social return of education (Kolesnikova, 2010). The human capital theory refers to the stock of knowledge, personal and social features and habits, in addition to creativity that enables the individual to complete the work to achieve a specific economic return (Goldin, 2016). With reference to men getting more job opportunities than women

(Kairiza, et al., 2017), and with a higher average wages for males (Valentova, 2013). However, women entrepreneurs are less likely to be involved in informal financial markets with their male counterparts (Kairiza, et al., 2017). This indicates the phenomenon of gender differences in the employment rates in favor of men (Babcock, 2017). Treating structural imbalances in the gender differences of employment is one of the most important goals of countries by focusing on the level of qualification required for the labor market (Lin, et al., 2017). And by focusing on the quality of education based on faculty members who are proficient in teaching methods and integrated educational curricula under a fair governance system (UNESCO, 2005). The effective teaching environment allows the student to acquire a large number of capabilities as well as training, as the academic competencies work to raise the level of the efficiency of specialized training for professions and jobs directed to the labor market (Heijke & Meng, 2007).

### **The problem of the study, its goals and questions**

The problem of this study is that the number of Saudis looking for a job with a Bachelor's degree or lycee degree has reached (660,102) individual out of (1,025,328). This means that (59.1%), of those looking for work in Saudi Arabia are graduates of higher education institutions who hold a Bachelor's degree or a lycee (General Authority for Statistics, 2019).

Therefore, it is very important to take the view of students expected to graduate from undergraduate programs about the expected reasons of unemployment for graduates of higher education institutions, specifically in two main axes: The first axis: The reasons of unemployment related to academic qualification, and the second axis related to work environment. Therefore, the study aims to:

1. Finding out the reasons associated with academic qualification leading to high unemployment rates among graduates of higher education institutions from the viewpoint of King Saud University students.
2. Identifying the reasons associated with work environment leading to high unemployment rates associated with graduates of higher education institutions from the viewpoint of students of King Saud University.

To achieve the aims of the study, the study seeks to answer the following questions:

1. What are the reasons related to academic qualification leading to high unemployment rates among graduates of higher education institutions from the viewpoint of King Saud University students?
2. Are there significant differences at ( $\alpha \leq 0.01$ ) in the responses of the sample subjects to the reasons of unemployment related to academic qualification according to the variable of academic track?
3. What are the reasons related to the work environment leading to high unemployment rates among graduates of higher education institutions from the viewpoint of King Saud University students?
4. Are there any significant differences at ( $\alpha \leq 0.01$ ) in the responses of the sample subjects to the reasons of unemployment related to work environment according to academic track variable?

### **Study definitions**

The researcher defines a number of basic concept mentioned in the study. They are:

- Knowledge: It is the sum of the information, fact competencies, skills, experiences and experiments the scientific and practical process.
- Innovation: The ability to constantly renew in new qualitative ways that are simple and feasible to achieve public and private benefit.
- Knowledge economy: It is the optimal return on investment for the outcome of information, facts, competence skills, experiences and individual and group experiments alike.
- Entrepreneurialism: A comprehensive applied approach to establish, protect and sustain a particular investment.
- The Fourth Industrial Revolution: All the accomplishment products, industries, services, inventions, innovations, applications, media and software that work to replace digital technology in the place of the human role.
- Academic track: It is divided into three categories according to the university academic colleges, which are: The human academic track that includes the human colleges at the university, the scientific academic track that includes the scientific colleges at the university and the health academic track that includes the health colleges at the university.

## **Methodology**

The study follows the survey methodology based on social survey of the sample (Al – Ghoul, 2015). So that the survey targets students expected to graduate (intentional stratified sample) at King Saud University in six colleges chosen randomly. A questionnaire was designed to take the views of students expected to graduate for their supposed time closeness to search for jobs and their endeavor to enter the job market after their graduation in time.

## **Population and study sample**

The study population consists of all male students expected to graduate in the six colleges that were chosen randomly, by a way of withdrawal with the return from the three academic tracks: health, science and humanity who numbered approximately, (1800) students, according to the graduate students guide for batch (58) published on the university's website for the year (2019). The number of members of the intentional stratified sample reached (196) students expected to graduate. They were chosen randomly based on the random field gathering for the largest possible number of members of the study population within (20) days of actual university hours, starting from Sunday 6/10/2019 to the end of Thursday corresponding to 31/10/2019 of the second month of the first semester of the academic year 2018/2019. Thus, the study sample constituted more than (10.0%) percent of the total study population. Note that the male University City is completely spatially separate from the female University City. For this reason, the study sample was restricted to males, due to the difficulty in communicating with the University City for females, and the difficulty of collecting data and practical following them with females.

The study tool (the questionnaire) was applied in six colleges that were chosen randomly by drawing with retrieval from a list that included all colleges of King Saud University according to its three academic tracks. Accordingly, the study tool was applied in the following colleges:

- Arts College, and College of languages and translation (Humanitarian academic track).
- College of science and College of food and agricultural sciences (Scientific academic track).

- College of applied medical sciences and College of medicine (Healthy academic track).

### Sample withdrawal procedures

The intentional method was used to withdraw the study sample from the students expected to graduate. They interviewed from the departments of the six specific colleges to which those students belong, within 20 days, using the random equal opportunity method within the college departments. A total of (217) questionnaires were collected from the targeted academic tracks. Twenty-one questionnaires were excluded from them, that did not fulfill the required conditions. Thus, the total number of questionnaires valid for analysis reached (196) questionnaires distributed among the targeted academic tracks, as follows.

**Table 1: Distribution of study sample individuals according to the academic track variable**

| Academic track         | No. | Percentage % |
|------------------------|-----|--------------|
| The healthy track      | 61  | 31.1%        |
| The scientific track   | 65  | 33.2%        |
| The humanitarian track | 70  | 35.7%        |
| Total                  | 196 | 100%         |

### The study tool

To collect the data necessary to answer the questions of the study, a questionnaire about the reasons of unemployment related to academic qualification and work environment was designed from the viewpoint of students expected to graduate from King Saud University. The questionnaire included the independent variable represented by the academic track in its three categories for students expected to graduate (healthy, scientific, and humanitarian tracks). Then the dependent variable represented by the viewpoint of students expected to graduate from King Saud University on the reasons of unemployment represented by two main axes: The first axis includes nine items. They reflect the expected reasons of unemployment associated with academic qualification.



The second axis includes nine items that reflect the expected reasons of unemployment associated with the work environment. To answer the two axes of the questionnaire within a five – step scale (Likert five – step scale). The gradient included the following: strongly agree, agree, don't know, disagree, and strongly disagree.

### Validity and reliability of the study tool

The questionnaire was presented in its preliminary form to five arbitrators and specialized experts. The proposed amendments were agreed upon by three arbitrators and more until the questionnaire in its final form includes the academic track variable with its three categories and two main axes that include (18) items.

### Validity of the internal composition of the study tool

The validity of the internal composition was verified by conducting a Pearson correlation coefficient test to measure the correlation of items with the total tool on a random sample of (20) individuals. All items came out significant at ( $\alpha \leq 0.01$ ). This indicates the consistency of the higher internal composition of the study instrument, as shown in Table 2.

**Table 2: Pearson correlation coefficients for the tool items**

| The first axis items | Pearson Correlation Coefficient | The second axis items | Pearson Correlation Coefficient |
|----------------------|---------------------------------|-----------------------|---------------------------------|
| 1                    | ** 0.890                        | 10                    | ** 0.838                        |
| 2                    | ** 0.881                        | 11                    | ** 0.878                        |
| 3                    | ** 0.938                        | 12                    | ** 0.917                        |
| 4                    | ** 0.969                        | 13                    | ** 0.937                        |
| 5                    | ** 0.855                        | 14                    | ** 0.876                        |
| 6                    | ** 0.956                        | 15                    | ** 0.885                        |
| 7                    | ** 0.952                        | 16                    | ** 0.921                        |
| 8                    | ** 0.928                        | 17                    | ** 0.780                        |
| 9                    | ** 0.869                        | 18                    | ** 0.886                        |

\*\*  $\alpha = 0.01$

### Reliability of the study tool (Cronbach – Alpha)

The reliability of the study tool was tested using the Cronbach – Alpha equation for all the items forming for each axis in the questionnaire on a sample of (20) individuals randomly selected from outside of the study sample. The value of the Cronbach – Alpha of the total tool reached (0.985), and the axis of the expected reasons of unemployment associated with academic qualification (0.978) and the axis of the expected reasons of unemployment associated with the work environment (0.967). This indicates that the tool has a very high degree of reliability, so that it can be relied upon as indicated in Table 3.

**Table 3: The Cronbach – Alpha consistency coefficients for the study tool (n = 20)**

| The axis  | Number of Items | Cronbach Alpha |
|---|-----------------|----------------|
| Reasons of unemployment associated with academic qualification. | 9               | 0.978          |
| Reasons of unemployment related to work environment.            | 9               | 0.967          |
| Total   | 18              | 0.985          |

## Results and discussion

### First: Reasons of unemployment associated with academic qualification<sup>2</sup>

The results in Table (4) indicate the high unemployment rates among graduates of higher education institutions from their point of view. It has been shown that the four most important reasons for unemployment related to academic qualification are as follows in descending order: “Failure to keep pace with academic programs for knowledge of knowledge economy”, it ranked first with a mean of (4.06) and standard deviation of (1.25). The second reason “Academic programs do not keep pace with the

<sup>2</sup> Presentation and discussion of the answer to the first question that states: What are the reasons related to academic qualification leading to high unemployment rates among graduates of higher education institutions from the viewpoint of King Saud University students?

knowledge of the Fourth Industrial Revolution” with a mean of (3.60) and a standard deviation of (1.33). The third reason was the lack of keeping up with academic knowledge of entrepreneurial knowledge with a mean of (3.48) and a standard deviation of (1.409). Fourthly, the reason the academic programs did not keep pace with innovation knowledge” with a mean of (3.42) and a standard deviation of (1.481).

The responses of the students in Table 4 confirm their great awareness of the most important reasons for their expected future unemployment related to their academic qualifications, namely the failure of their academic disciplines to keep pace with the rapid developments, transformations and qualitative transfers in a number of the most important areas of modern knowledge, especially: knowledge of knowledge economy, knowledge of the Fourth Industrial Revolution, Knowledge of entrepreneurship and knowledge of innovation.

These results are consistent with some of the findings of the studies (Abu Zaid, 2010) and (Al – Zamil, 2011), which emphasized that the academic programs don’t keep pace with the requirements of the times. It also agrees with some of the findings of Christian, et al. (2014) and Gibb (2013), in their focus on university entrepreneurial ship in generalizing knowledge and focusing on creativity and innovation in higher education institutions. And it also agrees with some of the findings of the (Al – Issa, 2016) study by affirming that the knowledge and skills acquired for graduates are not compatible with the needs and requirements of the labor market.

This confirms the level of awareness and great awareness of students expected to graduate with the requirements of active participation in the future, influencing it and its industry, and limiting the increase in future unemployment rates, through keeping pace with the accelerating global scientific and cognitive transformations that must be included in academic programs in higher education institutions. At a time when the importance of the reason for the poor practical training before graduation comes in late stages of importance for students compared to the knowledge of knowledge economy and the fourth industrial revolution and entrepreneurship and innovation. This indicates the students high confidence in their professional competencies and the quality of their practical training before graduation.

This is why these two reasons came at the end of the list of reasons in terms of importance to them. These two results conflict with what (Al – Hashemi & Al – Sayed, 2009) reached by confirming that the most prominent reasons of unemployment are the lack of professional skills and the lack of specialized vocational training for graduates.

This inconsistency may be attributed to the chronological age of conducting the study of (Al – Hashemi & Al – Sayed, 2009) approximately 11 years ago, and the accompanying period of professional developments and changes in academic programs at the time of the current study, and with what was stated in the study of Hart (2008) and their study of Kolesnikova (2010) in emphasizing the importance of the graduate having self – management skills, critical thinking and written skills that reflect on the life of the individual in order to achieve the social return of education.

This inconsistency may be attributed to the chronological age of conducting these two studies more than ten years ago.

**Table 4: Frequencies, percentages, means and standard deviations for reasons of unemployment related to academic qualification**

| Items   |            | Responding to Axis items |       |         |          |                   | Total | Means | Standard deviation |
|---|------------|--------------------------|-------|---------|----------|-------------------|-------|-------|--------------------|
|   |            | Strongly Agree           | Agree | Neutral | Disagree | Strongly Disagree |       |       |                    |
| Academic programs offered are not required by the labor market.                           | Frequency  | 42                       | 37    | 12      | 45       | 60                | 196   | 2.78  | 1.569              |
|   | Percentage | 21.4                     | 18.9  | 6.1     | 23.0     | 30.6              | 100   |       |                    |
| Weak qualifications for graduates.  | Frequency  | 33                       | 27    | 16      | 43       | 77                | 196   | 2.47  | 1.527              |
|   | Percentage | 16.8                     | 13.8  | 8.2     | 21.9     | 39.3              | 100   |       |                    |
| The poor knowledge level of graduates.  | Frequency  | 31                       | 41    | 23      | 34       | 67                | 196   | 2.67  | 1.511              |
|   | Percentage | 15.8                     | 20.9  | 11.7    | 17.3     | 34.2              | 100   |       |                    |
| The poor personal skills of graduates.  | Frequency  | 44                       | 48    | 35      | 41       | 28                | 196   | 3.20  | 1.376              |
|   | Percentage | 22.4                     | 24.5  | 17.9    | 20.9     | 14.3              | 100   |       |                    |
| Poor practical training before graduation.  | Frequency  | 39                       | 24    | 15      | 42       | 76                | 196   | 2.53  | 1.574              |
|   | Percentage | 19.9                     | 12.2  | 7.7     | 21.4     | 38.8              | 100   |       |                    |
| Academic programs don't keep pace with innovation knowledge                               | Frequency  | 60                       | 59    | 15      | 28       | 34                | 196   | 3.42  | 1.481              |
|   | Percentage | 30.6                     | 30.1  | 7.7     | 14.3     | 17.3              | 100   |       |                    |
| Academic programs don't keep pace with entrepreneurial knowledge                          | Frequency  | 54                       | 73    | 12      | 28       | 29                | 196   | 3.48  | 1.409              |
|   | Percentage | 27.6                     | 37.2  | 6.1     | 14.3     | 14.8              | 100   |       |                    |
| Academic programs don't keep pace with knowledge of knowledge economy.                    | Frequency  | 99                       | 55    | 12      | 15       | 15                | 196   | 4.06  | 1.251              |
|   | Percentage | 50.5                     | 28.1  | 6.1     | 7.7      | 7.7               | 100   |       |                    |
| Academic programs don't keep pace with the knowledge of the fourth industrial revolution. | Frequency  | 58                       | 73    | 12      | 34       | 19                | 196   | 3.60  | 1.330              |

### One – way ANOVA Test

Statistical differences according to the variable of the academic track for the sample subjects on the reasons of unemployment related to academic qualification: (Presentation and discussion of the answer to the second question that states: Are there any significant differences at ( $\alpha \leq 0.01$ ) in the responses of the sample subjects to the reasons of unemployment related to academic qualification according to the variable of academic track?

The results of the one – way ANOVA in Table (5) show that there were no significant differences at ( $\alpha \leq 0.01$ ) in the mean responses of the sample's (196) individuals in the reasons of unemployment related to academic qualification according to the variable of the academic track (health, scientific and humanitarian) for the sample subjects. The F-value was (1.508) at (0.224) level of significance, i.e., it is not statistically significant at ( $\alpha \leq 0.01$ ).

This value means that the subjects of the sample, by changing their academic tracks (health, scientific and humanistic), responded in a semi identical manner and agreed with great homogeneity on the most important reasons of unemployment related to the axis of academic qualification, according to the different academic tracks, as indicated in Table 5.

**Table 5: One – way ANOVA for differences between means**

|                | Sum of Squares | Degrees of Freedom | Mean squares | F-value | Level of Significance |
|----------------|----------------|--------------------|--------------|---------|-----------------------|
| Between Groups | 66.366         | 2                  | 33.183       | 1.508   | 0.224                 |
| Within Groups  | 4246.995       | 193                | 22.005       |         |                       |
| Total          | 4313.361       | 195                |              |         |                       |

**Second: The reasons of unemployment associated with the work environment<sup>3</sup>**

The results in Table 6, in which the study sample subjects were asked about the reasons of unemployment related to work environment leading to high unemployment rates among graduates of higher education institutions from their point of view, as it was found that the most important four reasons for unemployment related to the work environment are in descending order:

- Inability to implement applications of the fourth industrial revolution at work. It came in the first rank, with a mean of (3.87) and a standard deviation of (1.134).
- The second reason: Inability to use modern technologies and software at work, which came in the second rank, with a mean of (3.78) and a standard deviation of (1.236).
- The third reason was the scarcity of job opportunities, with a mean of (3.61) and a standard deviation of (1.306).
- Fourthly, the reason for not favoring the national workforce with a mean of (3.03) and a standard deviation of (1.549).

On the other hand, in the last rank and the penultimate rank, respectively, “the difficulty of adhering to the continuous working hours” with a mean of (2.32) and a standard deviation of (1.349). Then, the reason of “poor job security” with a mean of (2.49) and a standard deviation of (1.263).

The responses of the students mentioned in Table (6) confirm their high awareness of the most important reasons for their expected future unemployment related to the work environment and that is, the inability to implement the applications of the fourth industrial revolution in the work environment and modern technologies and software in the work environment, such as artificial intelligence technologies, robots, internet of things, nanotechnology, technology integration in the fields of life and other modern applications and technologies that must be employed and localized within the work environment that is actually available to reduce future unemployment rates.

This result is consistent with some of the results of the first axis, which confirmed that the academic programs did not keep pace with the knowledge of the fourth industrial revolution, which is related to the result of the inability to implement

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<sup>3</sup> Presentation and discussion of the third question that states: What are the reasons related to the work environment leading to high unemployment rates among graduates of higher education institutions from the viewpoint of King Saud University students?

the fourth industrial revolution in the work environment in the second axis. In fact, if the academic plans and academic programs don't match the knowledge of the fourth industrial revolution in the work environment. It is logical and inevitable that graduates will not be able to implement the fourth industrial revolution in the work environment. These results are also consistent with some of the findings of (Saleh, 2011) by asserting that academic programs lack the components for developing technological and production sciences. They also agree with some of the findings of (Aref, et.al. 2018; Badri, 2017 and Al – Harbi, 2016) by emphasizing the weakness of technical and computer skills among graduate.

These results are consistent with some of what was stated in study of Lin, et al. (2017) and the study of Heijke & Meng (2007) by referring to a focus on the level of qualification required for the labor market and a focus on raising the level of efficiency of specialized training for occupations and jobs directed to the labor market.

Therefore, these results are reflected and directly affect the decrease in job opportunities available to students expected to graduate because they are not able to use these applications and technologies, and then prefer non – national workers who have some knowledge and mastery of those applications and technologies within the work environment. The results of scarcity of job opportunities and the lack of preference for national labor coincide with some of the results of (Al – Harbi, 2016) which indicated that there are not enough job opportunities for graduates.

They also agree with the results reached by (Al – Shabaili & Abdul Ghani, 2012) with the help of the labor market with non – national manpower. They also agree with some of what (Al – Morshid & Mahdi, 2015) by competing with expatriate workers for graduates in the labor market.

In contrast, the importance of the reason for the difficulty in adhering to the continuous work hours and the reason for the poor job security come at the end of the list of expected future reasons of unemployment among students expected to graduate within the work environment in terms of importance. This result contradicts the findings of Al – Harbi (2016), that one of the reasons for being unemployed is the long working hours, and this discrepancy may be due to the different characteristics of Al – Harbi (2016) sample, which contained individuals who were out of work.

Therefore, these two results reflect the high sense of students expected to graduate with responsibility, compliance with labor laws, regulations and legislation, so

that they don't pose any of these reasons any threat or concern in the future work environment, comparing with the importance of the reasons for not being able to implement the fourth industrial revolution applications, software, and technologies in a work environment that will lead to a scarcity of job opportunities in front of them and a preference for expats to replace them.

**Table 6: Frequencies, percentages, means and standard deviations for reasons of unemployment associated with the work environment**

| Items   |            | Responding to Axis items |       |         |          |                   | Total | Means | Standard deviation |
|---|------------|--------------------------|-------|---------|----------|-------------------|-------|-------|--------------------|
|   |            | Strongly Agree           | Agree | Neutral | Disagree | Strongly Disagree |       |       |                    |
| Not preferring national employment.                                 | Frequency  | 52                       | 33    | 10      | 59       | 42                | 196   | 3.03  | 1.549              |
|   | Percentage | 26.5                     | 16.8  | 5.1     | 30.1     | 21.4              | 100   |       |                    |
| Hard working conditions (Work pressures).                           | Frequency  | 39                       | 53    | 20      | 49       | 35                | 196   | 2.94  | 1.427              |
|   | Percentage | 19.9                     | 27.0  | 10.2    | 25.0     | 17.9              | 100   |       |                    |
| Labour laws are difficult.  | Frequency  | 36                       | 52    | 53      | 28       | 27                | 196   | 2.79  | 1.287              |
|   | Percentage | 18.4                     | 26.5  | 27.0    | 14.3     | 13.8              | 100   |       |                    |
| Inappropriate salary ladder for the academic qualification.         | Frequency  | 48                       | 60    | 33      | 32       | 23                | 196   | 2.60  | 1.330              |
|   | Percentage | 24.5                     | 30.6  | 16.8    | 16.3     | 11.7              | 100   |       |                    |
| Inability of modern techniques and software at work.                | Frequency  | 17                       | 22    | 8       | 90       | 59                | 196   | 3.78  | 1.236              |
|   | Percentage | 8.7                      | 11.2  | 4.1     | 45.9     | 30.1              | 100   |       |                    |
| It is difficult to comply with the continuing working hours.        | Frequency  | 70                       | 61    | 15      | 32       | 18                | 196   | 2.32  | 1.349              |
|   | Percentage | 35.7                     | 31.1  | 7.7     | 16.3     | 9.2               | 100   |       |                    |
| Weak job security.  | Frequency  | 48                       | 68    | 33      | 29       | 18                | 196   | 2.49  | 1.263              |
|   | Percentage | 24.5                     | 34.7  | 16.8    | 14.8     | 9.2               | 100   |       |                    |
| The scarcity of job opportunities.                                  | Frequency  | 22                       | 20    | 27      | 70       | 57                | 196   | 3.61  | 1.306              |
|   | Percentage | 11.2                     | 10.2  | 13.8    | 35.7     | 29.1              | 100   |       |                    |
| Inability of implementing the fourth industrial revolution to work. | Frequency  | 11                       | 16    | 26      | 78       | 65                | 196   | 3.87  | 1.134              |
|   | Percentage | 5.6                      | 8.2   | 13.3    | 39.8     | 33.2              | 100   |       |                    |

### One – way ANOVA test

Statistical differences according to the academic track variable for the sample subjects on the reasons of unemployment related to the work environment: (Presentation and discussion of the answer to the fourth question that states: Are there any significant differences at ( $\alpha \leq 0.01$ ) in the responses of the sample subjects to the reasons of unemployment related to work environment according to academic track variable?

The findings of the one – way ANOVA in Table (7) show there were no significant differences at ( $\alpha \leq 0.01$ ) in the mean responses of the sample's (196)



individuals in the reasons of unemployment associated with the work environment according to academic track variable (health, scientific and humanitarian) for the sample subjects. The F – value was (0.638) at (0.529) level of significance, that is, it is not statistically significant at ( $\alpha \leq 0.01$ ).

This value means that the sample subjects, by changing their academic tracks (health, scientific and humanitarian) responded in a semi – identical manner and agreed with great homogeneity on the most important reasons of unemployment related to the axis of work environment, according to the different academic tracks, as indicated in Table 7.

**Table (7) One – way ANOVA for differences between means**

|                | Sum of Squares | Degrees of Freedom | Mean squares | F-value | Level of Significance |
|----------------|----------------|--------------------|--------------|---------|-----------------------|
| Between Groups | 34.618         | 2                  | 17.309       | 0.638   | 0.529                 |
| Within Groups  | 5234.885       | 193                | 27.124       |         |                       |
| Total          | 5269.502       | 195                |              |         |                       |

## Conclusion

The study used the survey method based on the social survey of the sample by selecting a purposive stratified sample of (196) individuals from students expected to graduate from King Saud University in six colleges chosen randomly. The questionnaire of the reasons of unemployment related to academic qualification and work environment was designed, from the viewpoint of students expected to graduate from King Saud University. It was applied to the study sample.

The four most important reasons for unemployment associated with academic qualification leading to high rates of unemployment among graduates of higher education institutions from the viewpoint of students expected to graduate from King Saud University are: Failure to keep pace with academic programs for knowledge of knowledge economy, failure to keep pace with academic programs for the fourth industrial revolution, failure to keep pace with academic programs for knowledge of

entrepreneurship, and failure to keep pace with academic programs for knowledge of innovation.

As four most important reasons of unemployment associated with work environment leading to high unemployment rates among graduates of higher education institutions from the viewpoint of students expected to graduate at King Saud University are: the inability to implement the fourth industrial revolution applications in the work environment, not being able to use modern technologies and software in the work environment, the scarcity of work opportunities and the lack of preference for national labor.

Whereas, the less important reasons for the expected future unemployment came among the students expected to graduate from King Saud University according to the axis of academic qualification and the axis of the work environment (the least important reasons): the reason for the weakness of the professional competencies of graduates, the reason for the poor practical training before graduation, the reason for the difficulty in adhering to the continuous working hours, and the reason for the poor job security, as these reasons formed a very weak importance for the study sample to enable them to do so.

It was found that there were no significant differences at ( $\alpha \leq 0.01$ ) in the means of the responses of the sample subjects of the (196) individuals, in the reasons of unemployment associated with the axis of academic qualification and also the axis of the work environment according to the academic track (health, scientific and humanitarian) variable for the sample subjects.

This means that the sample subjects, by changing their academic tracks, responded in a semi identical manner and agreed with great homogeneity on the most important reasons of unemployment related to the axis of academic qualification and the axis of the work environment with different academic tracks.

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