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Saudi labor market trends towards interdisciplinary programs

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The problem of unemployment and the employment of the national workforce is one of the most important issues with social, economic, and political implications in the Kingdom. An important explanation for the unemployment crisis is the problem of inadequate outputs of higher education for the needs of the labor market. Therefore, it is necessary to keep pace between changes and advancement in science and technology with the appropriateness of the employment environment in the university education system. Interdisciplinary courses contribute significantly to the development of thinking, awareness, and knowledge of scientific methods in order to increase the student's cognitive background, skills, and awareness to face the problem of unemployment. Effective investment in human resource development has contributed significantly to meeting the needs of the labor market, as one of the pressing strategic objectives pursued by universities. The research methodology was based on the distribution of a survey questionnaire to stakeholders outside the university, conducting workshops, and central meetings to raise awareness of the concept of multidisciplinary programs and their applications in the labor market. The research aims to describe, analyze, and reflect the gap between the non-alignment of the outputs of university education and the needs of the labor market in light of existing and future academic programs, and the global trend towards expanding interdisciplinary studies and multidisciplinary studies, In addition to developing mechanisms to encourage the development of curricula to cope with the scientific and technological variables, which is the development of scientific research capabilities in different branches of knowledge.

Keywords: Saudi Labor Market, Interdisciplinary Programs, Sustainable development, Community participation

INTRODUCTION

The universities of the developed world are now at the forefront of the development and modernization of disciplines and programs that create close links between the academic fields of their diversity and are called interdisciplinary disciplines in response to the renewed societal needs, which confirms that knowledge fields are no longer isolated islands as in the past.

In view of the important role played by universities in general, including King Abdul-Aziz University, and because of the importance of interdisciplinary programs as one of the requirements of sections of the labor market for university graduates and the growing sense of the need to develop these programs at King Abdul-Aziz University, it was necessary to extrapolate the views of different groups of society, this study was conducted to survey the views of private sector institutions and companies on these programs through the selected sample of employers representing the study society to identify their attitudes and views. A questionnaire was distributed to a sample of 100 institutions. 54 organizations responded by completing the forms. The study seeks through the results of questionnaires distributed to the owners of the labor market on the nature of the interdisciplinary programs and their importance.

Problem of the Study

The problem of unemployment and the employment of the national workforce is one of the most important issues with social, economic and political implications in Saudi Arabia. An important explanation for the unemployment crisis is the inadequacy of higher education outputs for labor market needs. Therefore, it is necessary to keep pace with changes and scientific and technological progress with the appropriateness of the employment environment in the university education system. Interdisciplinary courses contribute significantly to the development of thinking, awareness and knowledge of scientific methods in order to increase the student's cognitive background and skill to face the problem of unemployment.

Questions of the Study

The following questions have been formulated to identify closely the views and attitudes of the labor market towards the interdisciplinary programs and outputs:
Q1: Does the scope of the business (industrial, commercial, services, etc.) affect the sense of urgency of interdisciplinary programs?
Q2: Does the scope of work of the establishment (industrial, commercial, services, etc.) affect the belief that the interdisciplinary programs are compatible with the requirements of the labor market?
Q3: Does the field of work of the establishment (industrial, commercial, services, etc.) affect its willingness to contribute to the training of students and students of the interdisciplinary programs?
Q4: Is there a statistically significant relationship at the level of (0.05) between the satisfaction of the institutions with the skills of university graduates working for them and the sense of urgency of the interdisciplinary programs?
Q5: Is there a statistically significant relationship between the provision of interdisciplinary programs employment and job opportunities for university graduates and the ability of university graduates to compete in the labor market through their current specialization?
Q6: Is there a statistically significant relationship between the knowledge of the institutions of the interdisciplinary programs and its outputs and the help of these programs to provide employment opportunities for graduates?
Q7: Is there a statistically significant relationship between the employment of institutions for graduates of the interdisciplinary programs and the sense of urgency of such programs?
Q8: Is there a statistically significant relationship between the employment of institutions for graduates of interdisciplinary programs and the provision of these programs for job opportunities for graduates?

Significance of the Study

The importance of the study is as follows:
- Interdisciplinary disciplinary programs have become a prerequisite for many professions in the labor market.
- The diversity of science and knowledge gives the student high skills and abilities that enable him to handle and analyze issues from multiple perspectives.
- The implementation of interdisciplinary programs in the university education ensures high-quality educational outcomes with integrated information based on basic, natural and applied sciences that contribute to sustainable community development.
- These programs earn the student science and knowledge from a diverse perspective, to suit his aspired future job or career.

Objectives of the Study

This study aims to explore the views of private sector institutions and companies through the selected sample of employers on the extent of their knowledge of the interdisciplinary programs and their importance, and how to benefit from its development in Saudi universities.
The most important objectives to be achieved are:
- The development of interdisciplinary programs to enhance the skills of students in new fields of knowledge due to the overlap of several academic fields imposed by the nature of the requirements of the labor market.
- Bridging the gap between existing academic programs and the needs of the labor market, taking into account current and future growth through the development of insights into programs that serve the applied fields, and embracing the global approach to interdisciplinary, multi-disciplinary, studies, and sometimes in more than one college as an example of the integration between applied sciences and humanities that confer degrees in dual disciplines, such as humanities programs.

Study Approach

The study was based on a descriptive analytical approach to explain and interpret what are the interdisciplinary programs and its importance, in addition to using a questionnaire tool to survey the opinions of the business owners about what these programs are and how important they are. It was distributed to a sample of 100 institutions and using the Statistical Packages for Social Sciences (SPSS) program, the statistical analysis of the respondents' statements was made.

REVIEW OF RELATED LITERATURE

Interdisciplinary programs present a new revolution and a major challenge in the field of higher education, as it is

one of the most important starting points for the future of education worldwide. The idea of interdisciplinary programs is to find scientific solutions to problems of expansion and complexity that cannot be resolved through a single scientific discipline. Hence the importance of interdisciplinary programs and interdisciplinary research teams, through these programs, information and data, tools, research tools, scientific instruments, concepts, expectations, perspectives and scientific theories are exchanged between two or more scientific disciplines in order to maximize knowledge and integrate experiences in order to overcome the problems of weak educational outcomes that lie behind more than one perspective or specialization. (Report of the third conference - University of Ain Shams, 2014)

Interdisciplinary programs are a prerequisite for many occupations in the labor market at the level of developed countries. This in turn led to the competition of academic institutions to develop policies for the implementation of interdisciplinary programs and to encourage scientific research of interdisciplinary nature. Educational studies refer to increased demand for interdisciplinary studies in different fields of knowledge. This has necessitated the development of education systems at all levels and stages, especially the bachelor stage, as well as postgraduate studies in higher education in order to achieve the unity of knowledge and economy. The importance of interdisciplinary studies has been demonstrated by initiatives undertaken by the National Science Foundation (NSF) and the National Institute of Health (NIH) of the United States, and training programs have been adopted at prestigious international universities (Ammar, 2012).

The interdisciplinary approach has now surpassed the interdisciplinary approach to multi-disciplinary disciplines that combine more than one scientific discipline. The disciplines that combine scientific and literary studies, including pedagogic, humanities, social and technical sciences, as well as basic sciences, the student become able to design his / her curriculum through a set of compulsory and elective courses taught through more than one discipline and in more than one college and thus able to build his personality and develop his / her cognitive and applied skills (Ain Shams University, 2014). Based on the above, we find a great deal, taking into account the growing research and studies that deal with the concept of interconnection and its academic programs in various aspects, including:

Research published in 2014 has focused on monitoring the expected benefits of a number of interdisciplinary programs. Ejiwale (2014) published a paper entitled "Facilitating Collaboration between Science, Technology, Engineering and Mathematics in a System Technology Methods". "This program demonstrates the talents of the students who have been employed to achieve a common goal in collecting information about the program, sharing responsibility, creativity and knowledge of other people's experiences,". Similarly, Afflerbach et al. (2014) sought to monitor interworking at a graduate school in the United States of America through a public program of general psychology, medical, biological and social psychology.The study concluded that the program led to a new perspective in its field, which helped to obtain an assessment of its contribution to the community and the relevant scientific field and to those who studied and trained in it. Note that the authors of the study sought to provide the program based on their experience gained in the inter-program at another American university.

Nuttting (2013) conducted a research to explore the benefits of liberal arts of interdisciplinary programs by providing students with the skills required by the labor market, making them good competitors in this market. The study concluded that these areas should be taught to students enrolled in the STEM program and the vocational training program, which the researchers say provides a gateway for community college students, in particular, to join jobs in the labor market.

The Research and Studies Center at King AbdulAziz University (2010) prepared a working paper on "Interdisciplinary programs Studies and the Needs of the Labor Market". The paper discussed the following: the separatist approach to science and the deepening of cognitive disciplines, its implications, the complementary approach to knowledge and knowledge continuum, The importance of interdisciplinary studies, the gap between current academic programs and the needs of the labor market, and the proper scientific construction of private-sector interdisciplinary programs. The paper reached the following conclusions: The need to expand the fields of research and interdisciplinary studies, and to develop the public and private university institutions to take into account the creation of specialized entities in interdisciplinary fields that meet the needs of developing national labor (through new graduates) according to current and future environment variables, The importance of differentiation between the areas of interdisciplinary education, interdisciplinary and interdisciplinary fields, and the challenge of developing interdisciplinary educational mechanisms.

Study Procedures

- A workshop was held with the owners of the labor market in the private sector to identify their trends about the interdisciplinary programs and the most important skills required of graduates of the interdisciplinary programs.
- A questionnaire was built and distributed to a sample of (100) organizations, and (54) organizations responded to the questionnaire.
- There was a contact with the Ministry of Civil Service and the Ministry of Labor, the General Organization for Training and Technical and Vocational Education, the Royal Commission for Jubail and Yanbu to identify the

- directions of these departments or institutions to contact the quality of outputs of higher education, and learn about their views about the programs and the most important specifications of the graduates and distribution of questionnaire forms.

Table 1: the correlation coefficient and the level of significance of the questions in the labor market questionnaire model in the three axes

Axis	م	Item	Correlation coefficient	Sig
Satisfaction with the level of graduates of King Abdul-Aziz University	1	Have you ever hired some university graduates? If yes, please answer the following questions	0.542	0.00
	A	Is there satisfaction with the skills of university graduates working in your organization?	0.734	0.00
	B	Do you think that university graduates are able to compete in the labor market through their current specialties?	0.755	0.00
Knowledge of the presence of interdisciplinary programs in the Saudi universities	2	Does your organization have a prior idea of the interdisciplinary programs and its outputs?	0.807	0.00
	3	Has your organization already employed graduates of interdisciplinary programs? If yes, please answer the following question	0.682	0.00
	4	What is your assessment of the performance of these individuals?	0.609	0.01
The extent to which the labor market needs to have an interdisciplinary program	5	Is there an urgent need for such programs?	0.710	0.00
	6	Do these programs help provide graduates with job opportunities?	0.639	0.00
	7	Do these programs fit the requirements of the labor market?	0.755	0.00
	8	Does the development of interdisciplinary programs increase the level of knowledge of graduates of the university?	0.726	0.00
	9	Is the introduction of multidisciplinary programs upgrade the applicable level of university graduates?	0.767	0.00
	10	Does your organization have a willingness to contribute to the training of students and students of interdisciplinary university programs?	0.445	0.01

Reliability and validity of the questionnaire

The reliability coefficient was calculated using the midterm split where the questionnaire questions were divided into individual and double according to their order in the questionnaire. The average of the individual responses, the double responses and the sum of all the responses were then calculated and Pearson correlation coefficient was extracted. The coefficient value reached (0.625). To correct Pearson correlation coefficient, the following equation was used: $R = \frac{2r}{1+r} = \frac{2*0.625}{1+0.625} = 0.769$ where Pearson correlation coefficient after correction was (0.769) indicating that the reliability coefficient is acceptable and statistically significant (see Table 1).
To measure the internal validity, the mean was calculated for each axis of the questionnaire, and then to find the correlation coefficient between each question and the mean of its axis. The results were as follows:
The correlation coefficients shown at the significance level (0.05) are shown in Table 1, where the level of significance of each paragraph is less than (0.05), and thus the paragraphs of the questionnaire are considered to be true.

Characteristics of the study sample

1. Initial Data

Establishment Year: The year of establishment was divided into categories the length of each category 5 years and the results were as follows:

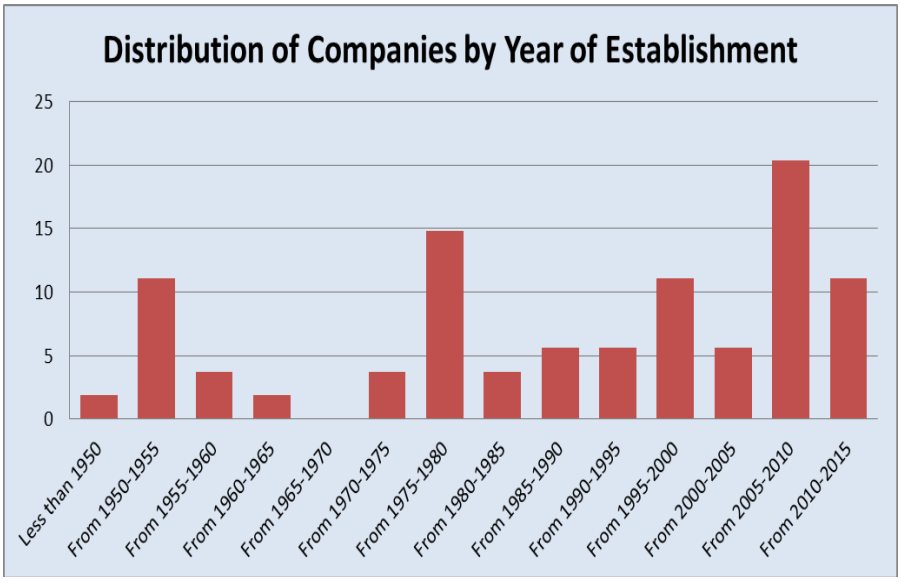

Figure 1: Number of companies surveyed in the study and year of establishment
Source: Fieldwork

Figure 1 shows that the largest number of institutions were established in the period 2005-2010 by (20.4%), with (11) institutions, then (6) institutions established in the period 2010-2015 and more than 50% of the institutions established during the period from 1990 to 2015. It is clear from the data that there is a difference between institutions in the year of establishment and this shows that there is a variety of institutions in terms of the year of its establishment.

2. Number of workers

The number of workers in institutions was divided into categories. The length of each category was 500 workers, and the results in figure 2 were as follows: Institutions with a small number of workers represented (33.3%), followed by institutions with more than (5000) workers representing (14.8%). Therefore, institutions selected between small and medium enterprises and havelarge number of workers.

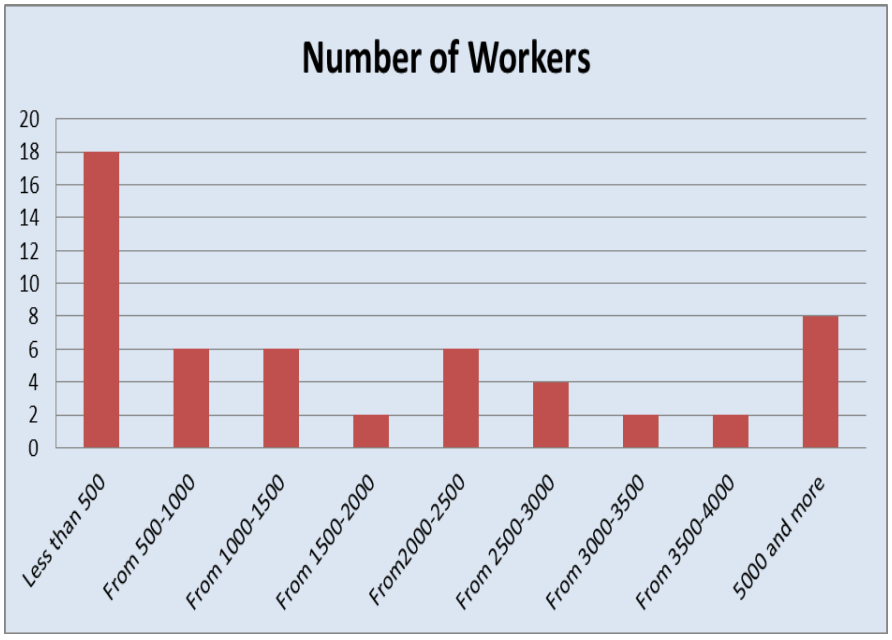

Figure 2: The number of workers in the institutions surveyed in the study

3. Field of work

Institutions were divided into industrial, commercial, service and other fields. Figure 3 shows that 22 establishments operate in other fields by (40.8%), followed by 12 establishments operating in the industrial sector with (22.2%), and followed by 11 companies operating in the service sector, (20.4%) and 9 in the commercial sector, (16.7%). It is also clear that most institutions are working in other areas.

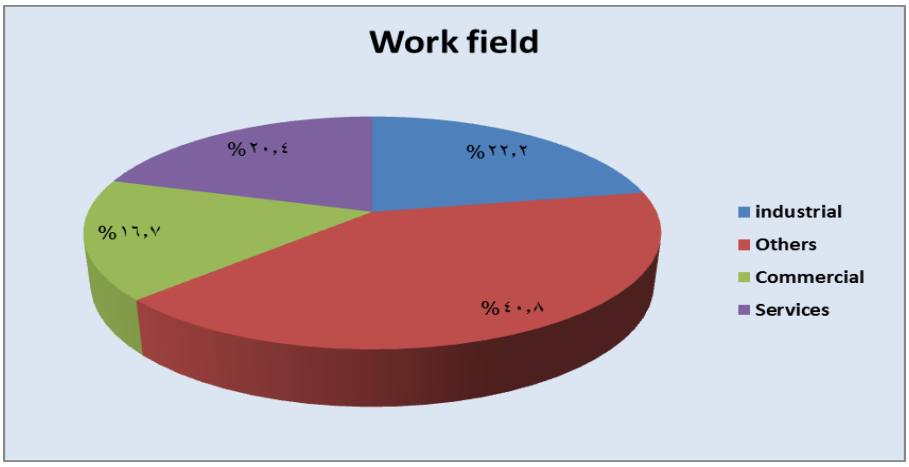

Figure 3: Number of establishments in the industrial, commercial, service and other fields

Indicators of trends of institutions investigated about scientific disciplines:

In terms of the size of companies identified to recruit KAU graduates, Figure 4 shows that it is a good trend in this field, where (76%) of these companies have already employed some graduates of the university. The graduates were highly qualified, with (67%) scoring good and very good, and (11.1%) receiving an excellent rating. But this result is taken cautiously as (50%) of the respondent institutions did not evaluate the performance of their graduates.These conditions have reflected the vision of companies identified for the ability of graduates to compete in the labor market through their current specialization, (46.3%) of the companies identified as being able to some extent, and (37%) of the companies identified it. It should be noted, however, that these responses may not be a judgment on the ability of graduates of current disciplines (micro disciplinary) to compete in the labor market, especially since a large part of the private sector institutions of small and medium enterprises (according to the standards of the number of workers, capital) Their needs are closer to the nature of delicate disciplines.

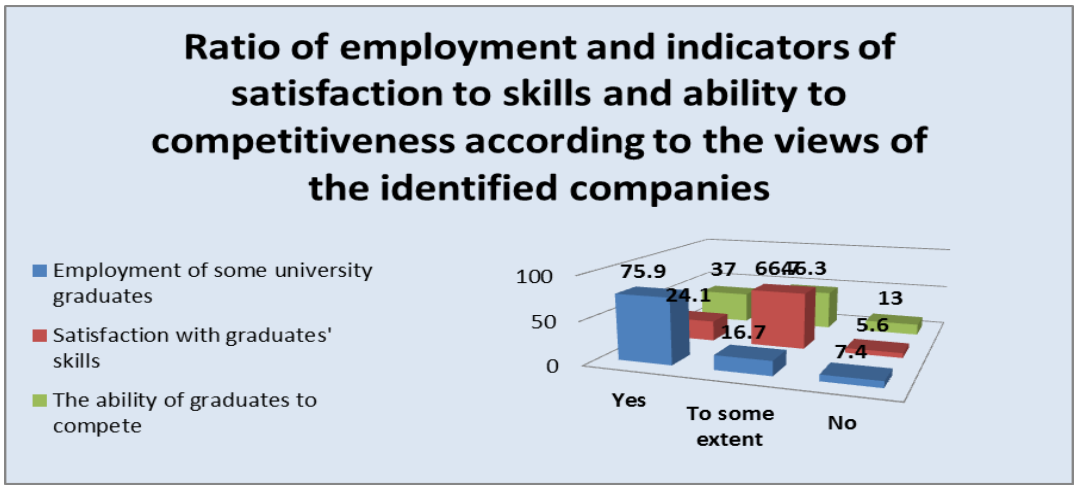

Figure 4: Ratio of employment indicators, satisfaction with skills and competitiveness according to labor market trends

Indicators of trends of institutions surveyed about graduates of the interdisciplinary programs:

As seen in Figure (5A & 5B), the degree of knowledge of companies identified by the programs is clear. About (57%) of companies do not know about these programs, while (24%) have some knowledge. This limited knowledge was reflected in the number of employees from these programs. The percentage of companies employing such graduates reached (9.3%). The results also indicated that (76%) of the graduates were unemployed. These employment conditions have implications for the views of companies identified on the prospects of Saudi labor market programs in the private sector, which will be explained later. Given the overall trend of these companies' performance, we find that they are somewhat satisfactory, which may enhance the employment potential of more graduates, while increasing the knowledge and importance of these programs, which may have a positive impact on the employment of these graduates.

Despite the limited knowledge of companies in the past, we find that (61%) of these companies believe that there is an urgent need for these programs. In addition, (33.3%) see this need to some extent, as shown in Figure 6.

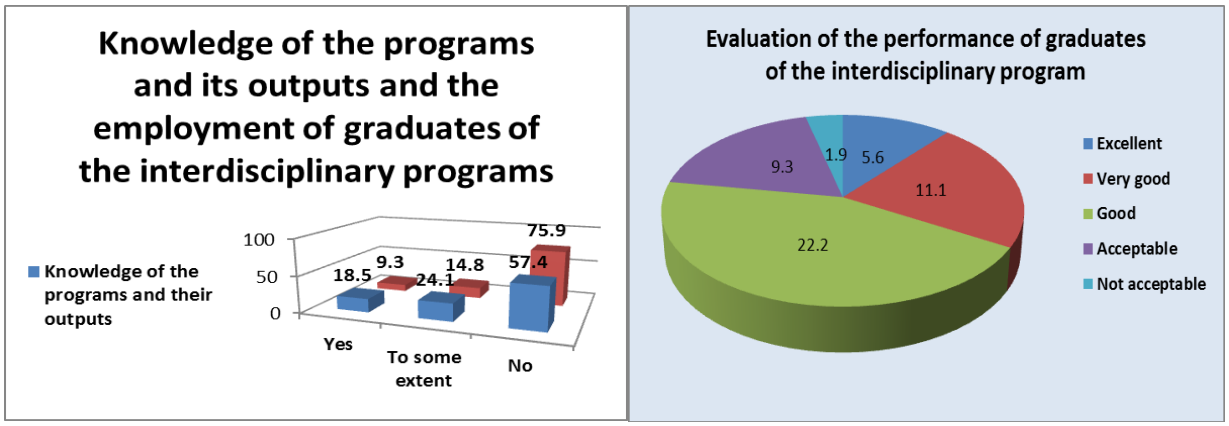

Figure 5 (A & B): Number and percentages of some indicators of knowledge of companies identified by the programs and outputs, and employment and evaluation of the performance of graduates of these programs

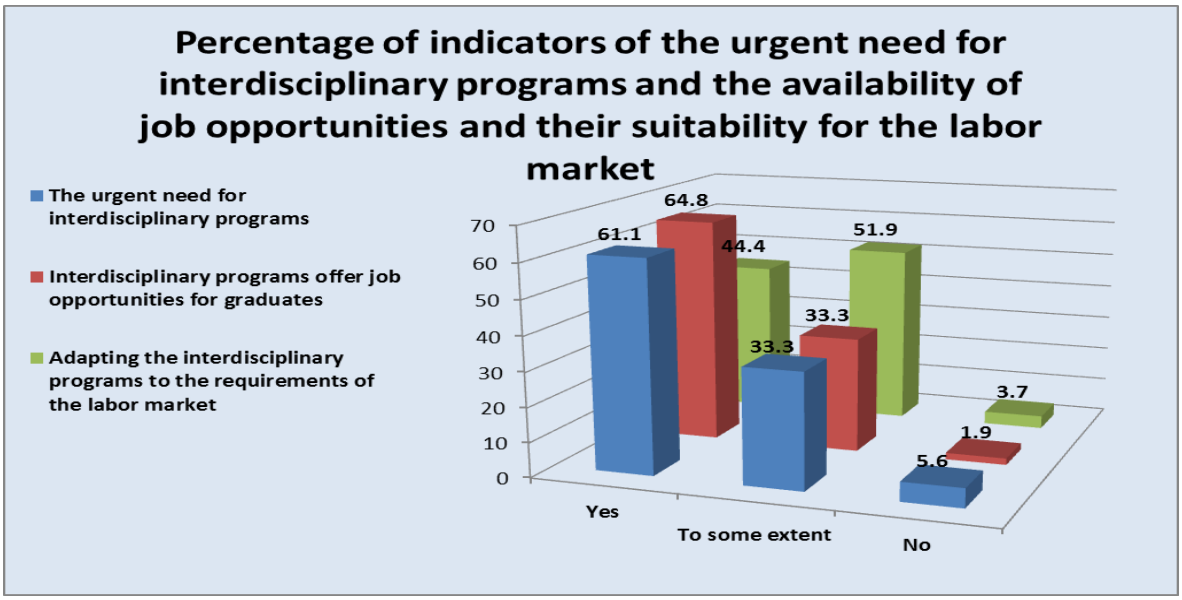

Figure 6: The percentage of indicators of urgent need, job opportunities for graduates and the suitability of the labor market

In addition, 65% of the respondents indicated that the presence of these programs will help create employment opportunities for university graduates. Again, (33.3%) of companies see this to some extent. Thus, it is not surprising that companies find that the correlation between the two programs is compatible with the requirements of the labor market. In this regard, the response ranged from (44.4%) to (52%) to a certain extent. This discrepancy in the results shows that the industrial companies do not acquire at least (25%) of the identified companies (22 companies), which are supposed to have greater knowledge and greater need for graduates of the technical and economic programs, which is reflected in their functional needs and nature. The companies identified are in contrast to the industrial companies, and hence they do not have the ability to sense the nature and potential of interdisciplinary programs, which may be reflected in the responses to the questionnaire. Companies may also have satisfied their degree of satisfaction with their job at university graduates with initial knowledge of the interdisciplinary programs through the introduction of the questionnaire, and assumed the establishment of these programs will benefit them. In addition, these programs are closely related to the knowledge economy. This economy is not present in the business sector in the Kingdom, which is the result of our survey of companies in terms of the size and nature of knowledge about these programs.

In line with the above, we find that the largest number of companies identified that the development of inter-university programs will raise the level of knowledge of the university graduate, as (61.1%) of the companies to do so, and (35.2%) of them believe that this development will raise the level of knowledge for postgraduates to a certain extent as shown in Figure 7. The same trend is related to the role of the inter-programs in upgrading the applied level of graduates, (61.1%) of companies believe that this will be achieved when using interdisciplinary programs about (35%) of the companies see will be achieved to some extent.

Despite the positive evaluation of the potential of the interdisciplinary programs by the companies to contact the quality of graduates in the future, only (46.3%) of them are willing to train students of the interdisciplinary programs. And about (22%) of them are willing in this regard to some extent. In addition, (22.2%) of them are not ready, and these responses may be low compared to the knowledge of the companies identified for these programs and therefore their training requirements.

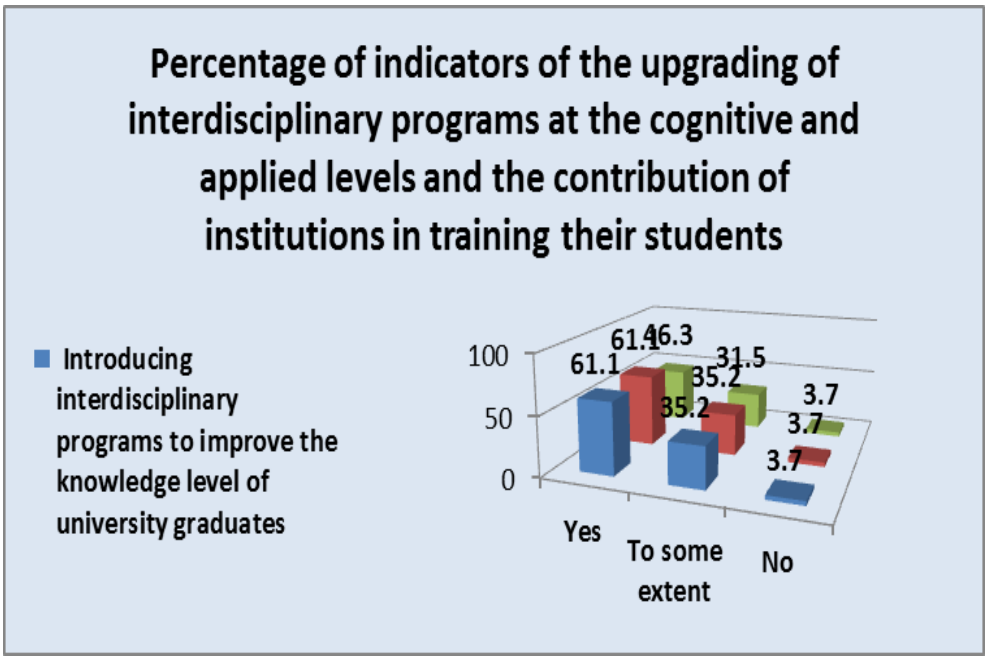

Figure 7: Number and percentages of some indicators of the upgrading of interdisciplinary programs at the cognitive and applied level to the graduate of interdisciplinary programs, and their contribution to the training of students according to the identified companies.
Source: Fieldwork

In order to know the biggest factors that may have affected the trends previously observed in the identified companies on the relationship between interdisciplinary programs in the labor market a number of questions have been asked.

Statistical Analysis of the Study Questions

Q1: Does the scope of the institution business (industrial, commercial, services, etc.) affect the sense of urgency of interdisciplinary programs?

In order to answer this question, cross tables were used to identify the numbers and percentages of each organization according to its field of work and its sense of the need for interdisciplinary programs. The results were as follows: Figure 8 shows that (22.2%) of the institutions that work in other fields, followed by (14.8%) of the establishments operating in the commercial sector followed by (13.1%) of the establishments operating in the industrial sector and (11.1%) of the establishments operating in the service sector feel that there is a need for interdisciplinary programs by (61.15%) of all fields of work. While 14.8% of establishments operating in other fields followed by 9.3% of institutions operating in the field of services, and 7.4% of enterprises operating in the field of industry and 1.9% of enterprises working in the field of trade feel that the need for interdisciplinary programs is urgent to some extent by (33.3%) of all work areas.While (3.7%) of enterprises operating in other fields, followed by 1.9% of enterprises operating in the industrial field only, sees the need for interdisciplinary programs to be (5.6%) of all areas of work. To investigate the effect of the institution's field of work on the sense of the need for interdisciplinary programs, the Chi-square test χ^2 was calculated. The results showed that the value of the Chi-square χ^2 reached (13,063) and the significance of (0.043) which is less than (0.05). That is, the impact of the institution's field of work on feeling the need of interdisciplinary programs is statistically significant.

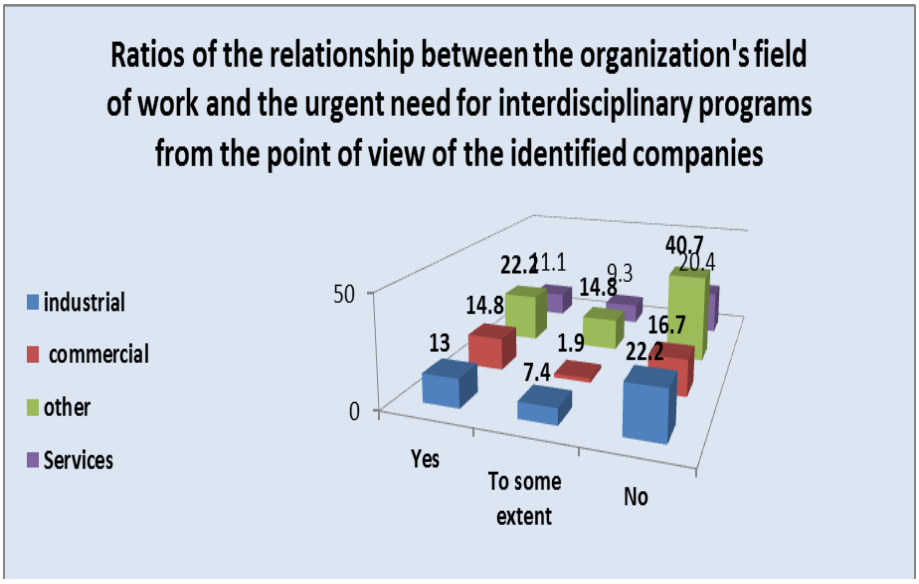

Figure 8: The relationship between the field of work of the institution and the urgent need for interdisciplinary programs from the point of view of the identified companies
Source: Fieldwork

Q2: Does the scope of work of the establishment (industrial, commercial, services, etc.) affect the belief that the interdisciplinary programs are compatible with the requirements of the labor market?

Intermittent form (9) was used to identify the relationship between the numbers and ratios of each institution according to its field of work and the belief in the suitability of the interdisciplinary programs labor market requirements. The results were as follows: (16.7%) of establishments operating in other fields followed by (14.8%) of establishments operating in the industrial sector, (7.4%) of enterprises operating in the commercial field, and (5.6%) of institutions operating in the field of services believe that the programs Interfaces are suitable for labor market requirements i.e. (44.4%) of all fields of work.

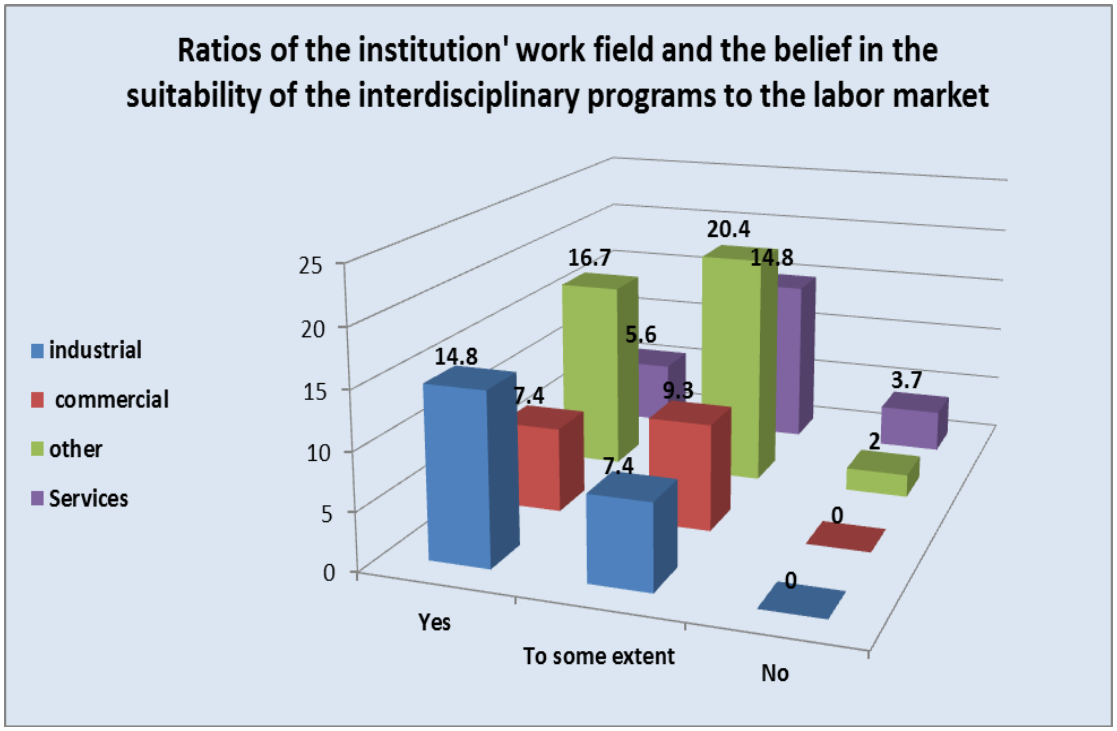

Figure 9: The relationship between the field of work of the institution and the belief in the suitability of interdisciplinary programs to the labor market

Q3: Does the field of work of the establishment (industrial, commercial, services, etc.) affect its willingness to contribute to the training of students of the interdisciplinary programs?

This question has been sought through the use of intermittent argument (Figure 10) to identify the numbers and percentages of each institution according to its field of work and the readiness of the institution to contribute to the training of students of interdisciplinary programs; the results were as follows: The previous table shows that (16.7%) establishments operating in the other fields, followed by (13%) of establishments operating in the commercial field, (9.3%) of establishments operating in the industrial field, and (7.4%) of institutions operating in the field of services have a willingness to contribute to the training of students and students of inter-programs, i.e. (46.3%) from all areas of work.While (11.1%) of the establishments operating in the field of services and other areas (7.4%) of the establishments operating in the industrial field and (1.9%) of the institutions operating in the field of trade have a willingness to some extent to contribute to the training of students of the programs by (31.5%) of all areas of work. While (13%) of establishments operating in other fields, followed by (5.6%) of enterprises operating in the industrial field and (1.9%) of institutions operating in the field of trade and service field is not willing to contribute to the training of students and programs of the programs and the proportion of (22.2%) of all work fields. In order to verify the significance of the institution's field of work on its willingness to train students of the interdisciplinary programs statistically, the Chi-square test χ^2 was calculated. The results showed that the value of the Chi-square χ^2 reached (12,843) and the significance of (0.025) which is less than (0.05), i.e. the previous results are statistically significant.

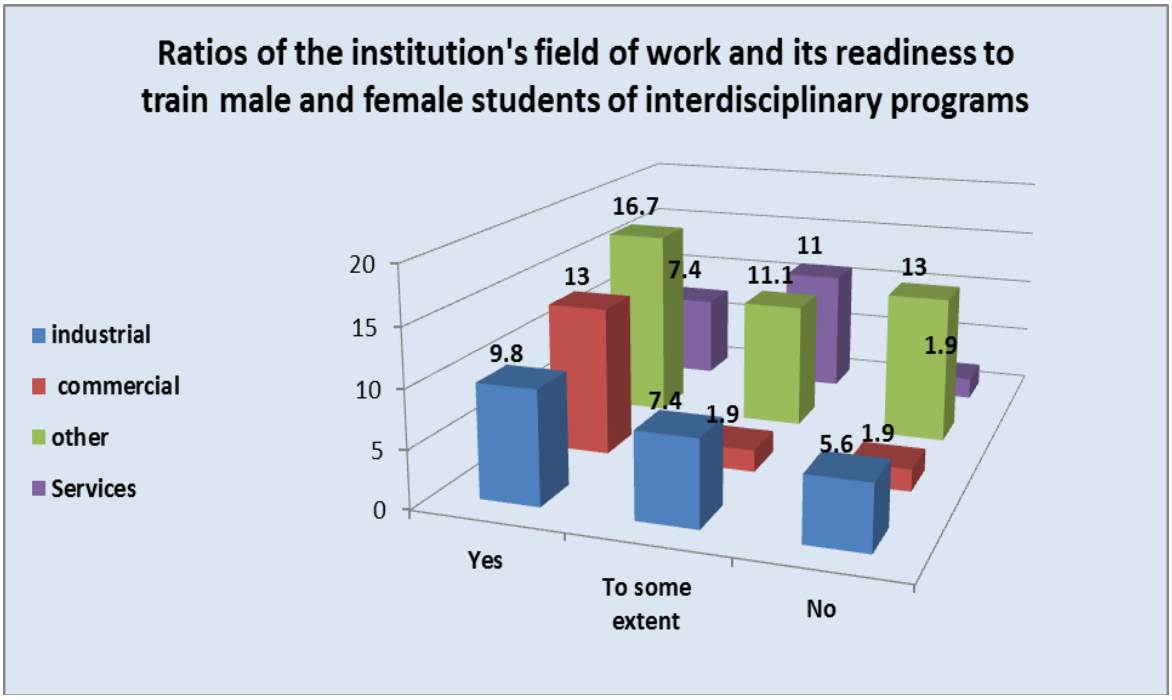

Figure 10: The relationship between the field of work of the institution and its willingness to contribute to the training of students of the interdisciplinary programs
Source: Fieldwork

RESULTS OF THE STUDY

From the above we can deduce that the field of work of the establishment (industrial, commercial, service, etc.) is linked to functional relations with each of the following:

- There is a sense of urgent need for the interdisciplinary programs by the large number of identified institutions, where the ratio of the total reached (61.1%) and the highest quality of institutions feel the urgent need are those institutions that work in other areas by (22.2%) of the total institutions.
- The belief in the compatibility of the interdisciplinary with the requirements of the labor market, where (44.4%) of the organizations believe in their suitability, and the most favorable among them were the institutions that operate in other fields with (16.7%) of the total institutions.
- 46.3% of the institutions have a willingness to contribute to the training of students of the interdisciplinary programs, and (16.7%) of the total institutions that wish to train students of interdisciplinary programs were institutions that work in other fields.
- We can also deduce that the development of interdisciplinary programs leads to linking academic programs with the needs of the labor market. The institutions feel the urgent need for these programs and believe that they are suitable for the requirements of the labor market and are willing to contribute to the training of students of the interdisciplinary programs.

Q4: Is there a statistically significant relationship at the level of (0.05) between the satisfaction of the institutions with the skills of the university graduates working for them and the sense of urgency of the interdisciplinary programs?

Pearson correlation coefficients were calculated to determine the extent of the correlation between the satisfaction of the institutions with the skills of their university graduates and the sense of urgency of the interdisciplinary programs at the level of significance (0.05). One Way Anova test was also calculated between the two previous variables to identify support for the imposition of a relationship of statistical significance or rejection of the hypothesis,the results showed that the value of Pearson correlation coefficient was (0.521), which is a positive but moderate value. The higher the satisfaction of the institutions with the skills of the graduates of the university, the greater the sense of urgent need of the interdisciplinary programs,the table shows that the calculated value of F which reached (4.58) and the significance value (0.015), which is less than (0.05), which enables us to support the assumption that there is a relationship between institutional satisfaction with the skills of university graduates who are employed and the sense of urgent need of interdisciplinary programs at a significance level of (0.05).

In general, the previous statistical results are valid, but show the limitations of the links. Thus, the previous qualitative analysis is the closest to the accuracy, as well

as the failure to complete the questionnaires in the case of some questions has prevented the confidence of the statistical results by the many missing values (small cells) in the tables of statistical analysis.

Inference results: From this we can deduce that the degree of satisfaction of institutions with the skills of graduates of King Abdul-Aziz University may be linked to their sense of the urgent need for interdisciplinary programs. The development of these programs will enhance the role of institutions of higher education in the sustainable development of the country and reduce the gap between the academic entities and the needs of the labor market. The need to anticipate this by increasing the knowledge and awareness of the sectors of the labor market the nature and content of the interdisciplinary programs as an effort to be done by the university.

Q5: Is there a statistically significant relationship between the provision of interdisciplinary employment programs and job opportunities for university graduates and the ability of university graduates to compete in the labor market through their current specialization?

Pearson correlation coefficient was calculated to determine the extent of the relationship and the degree of its strength between the provision of interdisciplinary programs, job opportunities for university graduates and the ability of university graduates to compete in the labor market through their current specialization at the level of significance (0.05). Also, One Way Anova between the two variables to identify the support of the hypothesis of a statistical significance relationship or rejection of the hypothesis.The results showed that the value of Pearson correlation coefficient was (0.054), which is a positive value, but it is very weak. The more the interdisciplinary programs provide job opportunities for university graduates, the higher the ability of university graduates to compete in the labor market through their current specialization. And the ability of university graduates to compete in the labor market through their current specialization is statistically significant at the level of significance of (0.05).

Inference results: From the above we can deduce that there is no relationship between the provision of interdisciplinary programs for graduates and their ability to compete in the labor market through their current specialization, that the current graduates' specialization does not enhance their ability to compete in the labor market. Therefore, the development of interdisciplinary programs can lead to job opportunities for graduates and increases their ability to compete in parts of the business sectors that need graduates of these programs, which leads to bridging the gap between educational programs and the needs of the labor market.This is an expected result in the absence of Saudi university graduates from specialized programs, to many skills necessary to fill the jobs currently available in the labor market.

Q6: Is there a statistically significant relationship between the knowledge of the institutions with the interdisciplinary programs and its outputs and the help of these programs to provide job opportunities for graduates?

Pearson correlation coefficient was calculated to determine the extent of the relationship and its strength between the institutions' knowledge of the programs and their outputs, and to help these programs provide job opportunities for the graduates at the level of significance (0.05). One Way Anova test was also calculated between the two variables on the support of the hypothesis of a statistically significant relationship or rejection of the hypothesis. The results were as follows: The value of Pearson correlation coefficient reached (0.725) and is a positive value, but moderate which mean that the more the institution has an idea of the interdisciplinary programs and its outputs the more the sense of urgent need of such programs,the table also shows that the calculated F value is (5.771) and the values of the significance of (0.010) are less than (0.05), which enables us to support the hypothesis that there is a relationship between the knowledge of the institutions of the interdisciplinary programs and their outputs and the sense of the urgent need for such programs with a statistical significance at (0.05).

Inference results: From this we can deduce that there is a relationship between the knowledge of the institutions of the interdisciplinary programs and their outputs and the help of these programs to provide job opportunities for graduates. Therefore, producing interdisciplinary programs and introducing them in the labor market will lead to employment opportunities for graduates, leading to the delivery of educational programs to the requirements and needs of the labor market and enhancing the role of higher education in the sustainable development of the homeland. According to the above, the relationship is theoretical and it is expected that the existing knowledge of the interdisciplinary programs, in light of the responses of the identified institutions, is limited knowledge and therefore the expected relationship is limited in turn.

Q 7: Is there a statistically significant relationship between the employment of institutions for graduates of the interdisciplinary programs and the sense of urgent need of such programs?

Pearson correlation coefficients were calculated to determine the extent of the relationship and the extent of its strength between the employment of institutions for

graduates of the interdisciplinary programs and the sense of urgent need of such programs at the level of significance (0.05). One Way Anova test was also calculated between the two variables to identify support the results showed that the value of Pearson correlation coefficient was (0.548), which is a positive and medium value, meaning that the more the institution employs the graduates of the programs, the more the institution feels the urgent need for such programs,the table shows that the value of calculated F is (7.123) and the values of significance are (0.032), which is less than (0.05), meaning that the relationship is statistically significant. Therefore, we can support the hypothesis that the relationship between the employment of institutions for graduates of the interdisciplinary programs and the sense of urgent need of such programs is statistically significant at (0.05). In addition, there are a number of private companies in the Kingdom, which are small, medium-sized companies that need more the graduates of the scientific programs.

Inference results: From the above we can deduce that there is a relationship between the employment of institutions of graduates of the programs and the sense of urgent need of such programs, and the introduction of interdisciplinary programs and the provision of graduates to meet the needs of the labor market leads to a narrowing of the gap between the needs of the market and the outputs of academic programs and enhances the role of institutions of higher education in the sustainable development of the country.

Q8: Is there a statistically significant relationship between the employment of institutions for graduates of interdisciplinary programs and the provision of these programs for job opportunities for graduates?

Pearson correlation coefficient was calculated to determine the extent of the relationship and its strength between the employment of the graduates of the programs and the provision of these programs for graduates' employment at the level of significance (0.05). One Way Anova test was also calculated between the two variables to identify support the results showed that the value of Pearson correlation coefficient was (0.820) and which was a positive and strong value, that is, the more the graduates of interdisciplinary programs were employed in the institutions, the more these programs provided job opportunities for graduates,the value of calculated F at (9.273) and the values of the significance of (0.014) are less than (0.05), which enables us to support the hypothesis that there is a statistically significant relationship between the employment of institutions and the graduates of the interdisciplinary programs. These programs provide graduates with statistical significance at (0.05) level.

This is evidenced by the high possibility of interdisciplinary programs, especially in the area of increasing the employment opportunities for graduates, considering the obstacles of employing all graduates of Saudi universities, mostly graduates of specialized programs, according to Yunis (no date) in a study on the suitability of Saudi university graduates to the needs of the local labor market, Many of these graduates lack a number of skills to fill jobs available in the labor market, such as English language proficiency, computer use, professional skills, etc. (www.alijaliah.net).

Thus, the Saudi universities have sought in the last decade to develop the quality of their graduates in order to avoid their previous shortcomings. This example can be used in King Saud University, which has developed a development plan that focused on reducing the number of undergraduate students, a preparatory year supported by programs and materials that increase the scientific and practical skills of students in the previously mentioned areas of shortage. This is with the pursuit of another aspect to develop the research facets of the faculty which is reflected on the level of the educational process indirectly (Manna, 2011, p. 469).

The other Saudi universities have followed the same path and similar development plans, such as King Abdul Aziz University, and the interdisciplinary programs will avoid the deficiencies in the qualification of university graduates by the nature of their courses, curricula and admission requirements. It should be emphasized that the role of the interdisciplinary programs is not complete without the development of specialized programs by virtue of the relationship of membership between them, and that both serve different functional needs. In general, there is no doubt that interdisciplinary programs graduates who can fill the large number of jobs available for business classified under the category of "professionals and scientific" This category in the private sector occupied by non-Saudis by up to (54%), according to data in 1999 (Chamber of Commerce Riyadh, 1999, p. 806), noting that the latest data, whether related to the latest tenth plan for the development of Saudi Arabia or the issuance of economic and social statistics issued by the Saudi Department of Statistics, show the continuation of this situation.

MAIN RESULTS

From the above we can deduce the following:

- The percentage of respondents who responded to the question of the degree of need for interdisciplinary programs reached a high level (61.1%).
- The proportion of those institutions that have a prior idea of interdisciplinary programs is(18.5%).
- Institutions that employ graduates of the interdisciplinary programs do not exceed (9.3%).
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- Percentage of the possibility of providing these programs job opportunities for graduates of these programs to about (65%).
- There is a relationship between the employment of institutions for graduates of the interdisciplinary programs and the provision of these programs for job opportunities for graduates.
- The development of interdisciplinary programs leads to employment opportunities for graduates, which enhances the role of higher education institutions in Saudization of private sectors.

RECOMMENDATIONS

Based on the results of the survey, the questions sent to the business sector, the following recommendations were reached:

- Raise the culture of the concept of the interdisciplinary programs and their importance among the employers in the society.
- Work to develop a partnership with the General Organization for Vocational Training in the field of implementation of interdisciplinary programs in relation to the training of students of these programs.
- Developing effective communication channels between universities and the private sector.
- Benefiting from the local, regional and international experiences of some universities in the field of interdisciplinary and multidisciplinary studies and ways of benefiting from them in the development of programs consistent with the reality we live in all its circumstances and ambitions.
- Encourage the scientific departments to develop programs to promote partnerships between the university and business owners.
- To provide a database on the professional, specialized and general skills needed by the labor market when developing interdisciplinary programs.
- Effective communication with the ministries of labor and the civil service about the interdisciplinary programs and its importance.
- Developing a database on the interdisciplinary programs at King Abdul-Aziz University and adapting them to the labor market.

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