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The Competency Assessment of Imam Abdulrahman Bin Faisal University (IAU) Graduates

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The current research paper aims to explore the reality of the competency of Imam Abdulrahman bin Faisal University (IAU) graduates to meet labor market requirements from the viewpoint of employers in service and production organizations in the Eastern Region. To achieve the objectives of the study, the descriptive approach is used and the adapted questionnaire was used to collect the data. The study sample consists of (254) direct employers of (IAU) graduates selected using the availability sample method. The results indicate that the level of overall competency of (IAU) graduates from the point of view of employers is of a high degree, whereas the level of professional and ethical competency is of a very high degree, while the dimensions of personal competency, cognitive competency, and technical and digital competency are a high degree. The findings also show that there are statistically significant differences at the significance between the mean of the employers' responses about the level of overall competency of (IAU) ersity graduates according to the difference in the graduate specialization domain in favor of the graduates of the educational domain. The study recommends working to enable (IAU) graduates to analyze data or digital information, focusing on enabling graduates to master the English language skill, both spoken and written.

Keywords: competency of graduate, qualifications, labour market requirements, graduate, labour market

INTRODUCTION

Social, technical, and cognitive difficulties have recently forced quick and successive changes in the labor market on world societies, including Saudi Arabia. This has had a direct impact on educational institutions, notably higher education, to adapt to the needs of the workplace. et al., Aebsapap, 2022; Nakhleh & Hanini 2022). Many workers who lacked the abilities and skills necessary for the labor market were fired as a result of

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these difficulties, which also had an impact on the quality of the labor market (Bartik et al.,2020; Abrassart, 2013). Abu Al-Fadl and Al-Juhani (2017), which recommends the necessity of updating and evaluating the strategic plan of universities concerning the needs of the graduates' labor market. Hamza's study (2015), however, emphasizes that officials - when developing educational policies - should take into account the change in the labor market and the required competencies and skills, changing from time to time according to the requirements of the internal and external labor market.As for Al-Amouri's study (2014), the role of higher education in preparing the students' social and cultural personalities and qualifying them scientifically and professionally for labor market requirements is emphasized. (Tomlinson.2012). Therefore, as put by Al-Rashed (2000, p. 8), "Educational systems need continuous evaluation and feedback to find strengths and weaknesses, and then work on developing them". The need for a continuous education evaluation process is confirmed by competition among nations in several respects, including the quality of education outputs represented by university graduates and their ability to work in the labor market through their knowledge, skills, and values (Bousquet, 2017; Deniz, 2022; Omiyefa, 2021). As a result, the state has allocated huge budgets to higher education organizations in return for a return represented in the production of highly qualified and skilled individuals, contributing to the development, progress, and advancement of society. The level of competency of any educational institution's outputs is an indicator of the educational system's ability to achieve academic goals while also serving the community. Furthermore, the competency indicators for educational outcomes are the quality of graduates, the extent of satisfaction of work officials with the graduates, their contributions, and the extent of their adequacy (Al Said et al. 2001). It is clear that higher education organizations, including Imam Abdulrahman bin Faisal University, are constantly striving to improve the quality of their educational performance because this is reflected positively in the competency of their outputs. Satisfaction of beneficiaries from students, society, and employers by providing high-quality human cadres qualified to fill labor-market openings (Al-Rubaie, 2008). These efforts are visible in the establishment of the Deanship of Quality and Academic Accreditation at Imam Abdulrahman bin Faisal University, as the university confirmed that the goal of establishing the Deanship of Quality and Academic Accreditation is to meet the requirements. The National Committee for Academic Accreditation and Assessment (NCAAA) to improve university performance in teaching and research.

Literature Review

Numerous studies and research papers have been published to investigate university graduates' competence in the Western world in general and the Arab world in particular(Tsvetkova, et al., 2012; Pekkarinen et al., 2020; Almazroa, 2020; Tóth, & Szivák, 2022). According to Al-Massad (2021), a study was conducted to assess the level of competence of the Public Authority for Applied Education and Training graduates and their suitability for Kuwaiti labor market requirements from the perspective of employers in the public and private sectors. To achieve the study's objectives, the descriptive survey method was used. The research tool (questionnaire) is intended for the 2018 study sample of employers. Graduates of the Public Authority for Applied

Education and Training have a medium level of competency, according to the findings (Burai, & Kardum, 2020).

Al-Sulaihat (2019) conducted research in order to achieve a proposed vision for developing the external competence of educational sciences faculties in Jordanian universities. To achieve the study's objectives, employ the descriptive survey method. A questionnaire is used to assess their satisfaction with the level of competence of educational college graduates. The stratified random sample consists of (216) educational supervisors and (229) school principals from four governorates: Amman, Madaba, Zarqa, and Balqa. Graduates of pedagogical faculties have an average level of external competence, according to the findings. As a result, the study proposes a vision for developing the competence of educational university graduates.

El-Bahnasawy (2018) conducted a study in Egypt to determine the degree of congruence between higher education and the labor market, as well as the extent to which higher education graduates possess the skills required by the Egyptian labor market. From the perspective of business officials. We used descriptive, quantitative, and qualitative methods. The interview is used as a research tool with a study sample of 101 businesswomen and businessmen from the deans and directors of college departments. According to the findings, businessmen are dissatisfied with the quality of Egyptian university graduates. The findings indicate a mismatch between university education curricula and labor market demands. Thus, the study recommends linking university education with the development policies of the Arab Republic of Egypt to meet the challenges and the changing knowledge and skill revolution necessary for the labor market. Asiri and Al-Tayeb (2018) conducted a study in Jeddah, Saudi Arabia, to discover the reality of educational outcomes from university education, as well as the degree of compatibility between university education outputs and university education needs. One of the most important sectors is education. A descriptive survey was carried out. The questionnaire was distributed to the study sample, which included (50) educational department directors. Graduates of higher education, according to the findings, lack the necessary communication and practical training skills. Furthermore, graduates' English language proficiency is low, as is a collaboration between higher education institutions and educational sectors. As a result, the study concludes that English proficiency is required in order to obtain an academic degree.

Al-Absi (2017) conducted a study in Yemen with the goal of revealing the reality of community colleges from the perspective of faculty members represented by deans and faculty members, as well as employers and university graduates. Colleges for the general public. The descriptive approach was used. The questionnaire was administered to a purposive sample of 858 participants, who included deputy deans, faculty members, community college graduates, and employers. According to the findings, the level of community college graduates in Yemen is low, and they do not meet the requirements of the Yemeni labor market. Issa (2017) also conducted a study to assess the efficiency of university graduates in relation to labor market requirements from the perspective of officials. The descriptive approach was used. Data and information were gathered using a questionnaire distributed to a random sample of (66) bank and company officials. The

findings indicate a low level of competency among Syrian university graduates, as well as a lack of practical training in students' curricula, which resulted in graduates' inability to acquire practical and professional skills, in addition to a low level of cognitive skills. (Berestova et al (2020).

According to the previous literature review, the external educational system's competency can be judged by the institution's outputs and the achieved goals of education, learning, and society, as well as the system's ability to meet labor market requirements and its contribution to society's progress and growth. (Aguirre Jr, Adalberto. (2020). To clarify, this can be accomplished by measuring the characteristics and skills acquired by graduates that qualify them for job vacancies in the labor market, such as scientific skills, communication skills, teamwork skills, cognitive skills, and the availability of some personal skills.

Problem Statement

The Kingdom of Saudi Arabia's universities are responsible for achieving development goals, graduating the greatest number of qualified and trained human cadres capable of meeting labor market demands, and elevating the status of Saudi society. Regardless of universities' roles, there is a mismatch between the skills and abilities of university graduates and the labor market requirements. According to Al-Otaibi (2010), higher education outputs in applied science disciplines are weaker than those in theoretical disciplines. As a result, it is suggested that educational institutions apply current work trends to their responsibilities so that the private sector does not have to modify graduates' skills (Adam, 2015). According to Al-(2012) Mawla's research, education outputs do not match labor market needs, and the labor market has a low level of providing new job opportunities as a result of the mismatch between education outputs and vocational and technical training and skill needs. As a result, the study recommends developing a clear training and education strategy that ensures compatibility between higher education outputs and labor market demands. A review of previous literature, according to Al-Mawla (2012), reveals that there is a gap between skills and labor market requirements, which leads to employers' reluctance to provide job opportunities for graduates due to a lack of graduates.

Similarly, the International Monetary Fund (2018, p. 31) reports an increase in the unemployment rate among Saudi male and female university graduates from 10% in 2008 to 12.8% in 2017, indicating that the majority of the unemployed have a certain level of education, with 52% having a bachelor's degree. However, the problem is stated by investigating the reality of Imam Abdulrahman bin Faisal University graduates' competence to meet labor market requirements from the perspective of employers in service and production organizations in the Eastern Province.

Research Questions

In light of the problem statement, the research questions are:

1. What is the reality of the competency of (IAU) graduates to meet labor market requirements from the viewpoint of employers in service and production organizations in the Eastern Region?

The following sub-questions derive from the main question.

A. What is the level of competency of (IAU) graduates from the point of view of employers?

B. Does the level of competency of (IAU) graduates differ according to the graduate specialization domain (educational, administrative, health, engineering), from the point of view of employers?

Research Objectives

The objectives of this study are to:

1. Investigate the reality of (IAU) graduates' ability to meet labor market demands from the perspective of employers in service and production organizations in the Eastern Region.

2. Identify the level of competency of (IAU) graduates from the point of view of employers.

3. Determine whether, in the eyes of employers, the competency of (IAU) graduates varies according to the graduate specialization domain (educational, administrative, health, engineering).

Significance of the Study

The study's importance is reflected in its ability to shed light on the reality of the competencies available among (IAU) graduates and their compatibility with the requirements of the Saudi labor market. Furthermore, the study may aid in the development of a standard and measure for assessing the competency of university graduates. Furthermore, it is hoped that the study will aid researchers and scholars in conducting additional studies on the compatibility of graduate qualifications and labor market needs.

On a practical level, the results obtained may benefit educational planners in upgrading university curricula and identifying the scientific and practical skills required to raise the competency of (IAU) graduates in light of their fulfillment of the Saudi labor market requirements. Furthermore, it may contribute to identifying the variables that would increase university graduates' competency and the obstacles that would limit their competency. Furthermore, it may aid development planners in developing a strategy that connects university graduates' competencies with labor market needs.

METHOD

Research Approach

The nature of the study necessitates the use of a descriptive approach appropriate to the study's objectives in order to describe and analyze the reality of (IAU) graduates' competency from the perspective of direct employers in service and production organizations.

Study Population and Sample

The study population consists of all direct employers in the production and service organizations in the Eastern Region, both private and public, where the (IAU) graduates

worked during the academic year 2019-2020. The study sample consists of 254 direct employers of graduates representing (IAU) graduates chosen using the availability sample method.

Research Instrument Validity and Reliability

The descriptive approach is used and the adapted questionnaire was used to collect the data. It has been adopted and used as a research tool to investigate the reality of (IAU) graduates' competency and the extent to which they meet labor market requirements from the perspective of employers in service and production organizations in the Eastern Province. The questionnaire was given to (16) specialized validators who evaluated its quality in terms of its ability to perform its role in measurement, its adequacy for the study's objectives, the clarity of the indicators, and the extent to which each indicator belongs to the dimension related to it, as well as the importance of each indicator and the accuracy of the linguistic formulation. Pearson's Correlation Coefficient is calculated to determine the degree of correlation of each questionnaire indicator with the overall degree of the dimension to which the indicator belongs in order to determine the internal consistency of the questionnaire. The results show that there are significant correlations between the indicators and the dimensions to which they belong at the significance level (0.05), indicating that the questionnaire has a high internal validity that makes it valid for achieving the study's objectives.

To check the study instrument reliability, Cronbach's Alpha coefficient is used and applied to a survey sample of (30) employers as shown in Table (1).

Table. 1
Cronbach's alpha reliability coefficient for each dimension of the questionnaire dimensions and overall reliability

No.	Dimension	Reliability Coefficient Value (Cronbach's Alpha)
1	Cognitive Competency	0.80
2	Personal Competency	0.94
3	Professional and Ethical Competency	0.89
4	Technical and digital competency	0.93
5	Overall Reliability of Entire Questionnaire	0.95

According to the findings of the validity, reliability, and internal consistency tests, the measurement instrument, a questionnaire, is valid and accurate for the measurement role intended for it, as well as highly reliable, making it an instrument ready for use with confidence and reliability.

Data Analysis

Data collected were analysed using descriptive statistics (mean and standard deviation) and One-Way ANOVA. All hypotheses were tested at 0.05 level of significance

FINDINGS AND DISCUSSION

First: Findings related to the First Research Question

What is the level of competency of (IAU) graduates from the point of view of employers? To answer this question, the means, standard deviations, and percentages

are calculated to rank the dimensions of the competency of (IAU) graduates and their indicators. Table (2) illustrates those findings.

Table 2
Means, standard deviations, percentages, and graduate competency level indicators of employers' responses of each of the four dimensions of competency

No.	Rank	Dimension	M	SD	Percentage	Degree
3	1	Professional and Ethical Competency	4.26	0.57	85.2%	Very High
2	2	Personal Competency	3.99	0.70	79.8%	High
1	3	Cognitive Competency	3.97	0.68	79.4%	High
4	4	Technical and Digital Competency	3.89	0.80	77.8%	High
Overall Competency of Imam Abdulrahman bin Faisal University Graduates (IAU).			4.05	0.60	81%	High

Table (2) shows the means, standard deviations, percentages, rank, and degree of overall competency for Imam Abdulrahman bin Faisal University graduates from the perspective of employers, with an overall mean of (4.05), indicating the overall satisfaction of employers with the overall competency of (IAU) graduates. This outcome can be attributed to Imam Abdulrahman bin Faisal University's continuous development of academic programs, as the university has always prioritized academic quality. This was demonstrated by the establishment of the National Center for Quality and Academic Accreditation, through which the university obtained organizational and program accreditation for some of its academic programs.

However, this result differs from the results of (Al-Dajni et al., 2018; Al-Sleihat, 2019), indicating that the study sample's satisfaction with the graduates' competency is medium. This result also differs from the results of (Aloysius et al., 2018; El-Bahnasawy, 2018;; Damanhouri, 2013; Al-Absi, 2017; Rashad & Abdel-Alim, 2019; Radwan, 2014; Asiri & Tayeb, 2018; Issa, 2017; Lamin & Murad, 2019; Madgali & Taylor, 2015; Ho 2015), confirming the inappropriateness of graduates to the needs of the labor market.

Table (2) displays the ranking of the degree of competency dimensions of (IAU) graduates from the perspective of employers, with the third dimension "professional and ethical competency" ranking first with a mean of (4.26), indicating that the majority of the employers' responses are very high. To explain, this result is due to the university administration, deans of faculties, faculty members, and students recognizing and appreciating university graduates' professional competency in applied and professional domains.

According to the Department of Public Relations and Media at (IAU) (2019), the Vice Dean of Academic Affairs confirms that Imam Abdulrahman bin Faisal University graduates won first place in the competency test for male and female teachers among graduates of other Saudi universities, where the percentage of academic achievement is (85.6%) with a mean of performance of (57.2%). In particular, this is the highest academic achievement rate among all graduates from twenty-five Saudi universities,

where the overall mean achievement rate is (54.6%) and the mean performance rate is (47.6%). It differs from the study of (Al-Dajni et al., 2018), in which professional competency is ranked second. As a result, the study suggests that the graduate's training level and the number of hours be increased.

In terms of degree, this result agrees with the study of (Al-Dajni et al., 2018), which emphasizes the role of the university, the sources of upbringing, and community organizations in the upbringing of the student's personality and abilities, as well as with Ho's (2015) study, which confirms that personal competency is one of the most important skills in the jobs offered in the labor market.

Furthermore, with a mean of (3.97), the dimension of "cognitive competency" is ranked third with a high degree. This result may be attributed to the fact that the university provides a large amount of knowledge to its students in the courses, resulting in the acquisition of deep scientific knowledge, in addition to the competency of the faculty members, as the faculty and staff are selected with high standards. This finding is consistent with the findings of (Al-Dajni et al., 2018), in which cognitive competency is ranked third.

Similarly, with a mean of (3.89), the fourth dimension "technical and digital competency" is ranked fourth with a high degree. This result can be attributed to the university's efforts to keep up with new programs and recent changes, as well as technical courses and workshops, such as the "Twaiq" program launched by the College of Studies and Human Sciences in Jubail, which is highly sought after by university graduates and students.

The following section presents a discussion of each dimension of the study according to its order in the study instrument.

Dimension One: Cognitive Competency

Table 3
Means, standard deviations, percentages, ranks, and graduate competency level indicators of the employers' responses of the cognitive competency arranged in descending order according to means

No. of Indicator	Rank	Text of Indicator	M	S D	Percentage	Degree
4	1	The graduate has the ability to develop his acquired knowledge and skills.	4.21	0.79	84.2%	Very High
6	2	The graduate benefits from the knowledge and information of former employees in the domain of specialization.	4.17	0.83	83.4%	High
1	3	The graduate possesses extensive and in-depth knowledge in the academic domain of specialization.	4.15	0.74	83%	High
2	4	The graduate employs scientific knowledge in the domain of specialization.	4.12	0.79	82.4%	High
3	5	The graduate uses specialized knowledge to meet business needs.	4.07	0.81	81.4%	High
5	6	The graduate employs critical thinking skills to solve problems in the domain of specialization.	3.91	0.92	78.2%	High
7	7	The graduate has the ability to predict work requirements.	3.81	0.93	76.2%	High
9	8	The graduate has the ability to analyze digital data or information.	3.77	0.95	75.4%	High
8	9	The graduate is fluent in both spoken and written English.	3.50	1.13	70%	High

Table (3) displays the cognitive competency dimension's means, standard deviations, percentages, ranks, and graduate competency degree. It is clear that the means of the indicators of the degree of cognitive competency dimension for (IAU) graduates from the perspective of employers' range between (3.50 - 4.21), which is within the range of (high-very high). As shown in Table (3), indicator (4), which states that "the graduate can develop his acquired knowledge and skills," is ranked first among the cognitive competency dimension indicators, with a mean of (4.21) and the descriptive rating of the means of the employer responses is very high. This is due to graduates developing a desire to continue learning in order to become qualified, and thus the graduate can usually develop his acquired knowledge and skills. This finding is consistent with Ho's (2015) research, which emphasizes the value of being open to new information as well as having the ability and desire to learn.

Furthermore, indicator (8), which states, "The graduate is fluent in both spoken and written English," is ranked ninth and last of the cognitive competency dimension indicators, with a mean of (3.50) and a descriptive rating of the means of the employer responses is high. This is because graduates received English language programs during their educational stages through special training programs, which some students joined

in order to prepare themselves for competition in the labor market. Therefore, the graduate is usually fluent in both spoken and written English. Also, it may be attributed to the university's recent tendency to teach in English in most of its faculties, in addition to the diplomas and intensive training courses offered by the Deanship of the Preparatory Year and Supporting Studies in the English language for the employees and students of (IAU). This result differs from the study (Asiri & Tayeb, 2018), indicating a low level of English for graduates of higher education. Accordingly, the study recommends making English language proficiency a prerequisite for obtaining an academic certificate. It also differs from study (2013), which demonstrates that university graduates are not fluent in English.

Dimension Two: Personal Competency

Table 4
Means, standard deviations, percentages, ranks, and graduate competency level indicators of the employers' responses of the personal competency arranged in descending order according to means

No. of Indicator	Rank	Text of Indicator	M	S D	Percentage	Degree
13	1	The graduate responds to the instructions of his managers.	4.29	0.71	85.8%	Very High
1	2	The graduate has the ability to communicate effectively with clients and employees.	4.18	0.79	83.6%	High
5	3	The graduate has self-confidence.	4.17	0.78	83.4%	High
6	4	The graduate has the ability to take responsibility.	4.13	0.83	82.6%	High
2	5	The graduate can express the thoughts to others individually or collectively.	4.11	0.78	82.2%	High
4	6	The graduate can adapt to different work environments.	4.03	0.87	80.6%	High
7	7	The graduate possesses self-regulatory skills at work.	4.00	0.90	80%	High
3	8	The graduate possesses the skill of persuasion and negotiation with others.	3.91	0.94	78.2%	High
11	9	The graduate possesses the skills to deal with emergencies and crises.	3.87	0.90	77.4%	High
9	10	The graduate has the ability to make the right decision at the right time.	3.83	0.90	76.6%	High
10	11	The graduate possesses planning skills at work.	3.83	0.95	76.6%	High
8	12	The graduate has the ability to lead work teams efficiently.	3.78	0.97	75.6%	High
12	13	The graduate possesses the skill of public speaking and presentation.	3.67	1.01	73.4%	High

Table (4) displays the means, standard deviations, percentages, ranks, and competency degree of the graduates for the personal competency dimension. It indicates that the means of the indicators of the personal competency dimension of (IAU) graduates from the perspective of employers are high, with a mean between (3.67 - 4.29), and it is within the degree range (high-very high).

As shown in Table (4), indicator (13) stipulating "The graduate possesses the skill of public speaking and recitation" is ranked first among the indicators of the personal

competency dimension, with a mean of (4.29) and a descriptive rating of the means of the responses of employers is very high. This result is explained by the fact that graduates are keen to win the confidence of their managers to obtain opportunities for promotion, and therefore the graduate usually responds to the instructions of their directors, the graduates' commitment to the Code of Ethics, the impact of the orientation day in the first week of the preparatory year, in which students are introduced to the university's facilities, regulations, and laws, alongside the pact that is between the faculty member and the student at the beginning of each course, which makes the graduate aware of the required responsibilities within the work environment.. Besides, indicator (12) stipulating "The graduate possesses the skill of public speaking and presentation" is ranked thirteenth and the last among the indicators of the personal competency dimension, with a mean (3.67) and the descriptive rating of the means of the responses of employers is high. This result is explained by the fact that the graduates practice educational activities related to providing them with the necessary skills, and therefore the graduate usually possesses the skill of public speaking and presentation.

Dimension Three: Professional and Ethical Competency

Table 5
Means, standard deviations, percentages, ranks, and graduate competency level indicators of the employers' responses of the professional and ethical competency arranged in descending order according to means

No. of Indicator	Rank	Text of Indicator	M	S D	Percentage	Degree
11	1	The graduate responds to the instructions of his managers.	4.53	0.59	90.6%	Very High
9	2	The graduate has the ability to communicate effectively with clients and employees.	4.48	0.61	89.6%	Very High
10	3	The graduate has self-confidence.	4.44	0.69	88.8%	Very High
7	4	The graduate has the ability to take responsibility.	4.41	0.67	88.2%	Very High
8	5	The graduate can express the thoughts to others individually or collectively.	4.39	0.71	87.8%	Very High
12	6	The graduate can adapt to different work environments.	4.36	0.71	87.2%	Very High
6	7	The graduate possesses self-regulatory skills at work.	4.26	0.74	85.2%	Very High
2	8	The graduate possesses the skill of persuasion and negotiation with others.	4.17	0.75	83.4%	High
1	9	The graduate possesses the skills to deal with emergencies and crises.	4.10	0.82	82.0%	High
3	10	The graduate has the ability to make the right decision at the right time.	4.09	0.82	81.8%	High
4	11	The graduate possesses planning skills at work.	4.05	0.88	81.0%	High
5	12	The graduate has the ability to lead work teams efficiently.	3.58	0.96	77.0%	High

Table (5) shows the means, standard deviations, percentages, ranks, and the graduate's competency degree for the professional and ethical competency dimensions. It also shows that the means the indicators of the degree of the professional and ethical

competency of (IAU) graduates from the point of view of employers are between (4.53-3.58), which is within the degree (high-very high).

To clarify, indicator (11) stipulating "The graduate responds to the instructions of his managers" is ranked first among the indicators of the professional and ethical competency dimension, with a mean (4.53) and a high descriptive rating of the means of employer responses. This outcome is attributed to the guidelines and penalties for violating the regulations imposed by (IAU) on all of its employees, including the rules of dress and societally acceptable behaviors. Furthermore, faculty members set a good example for their students, which is positively reflected in (IAU) students, as well as the graduates' eagerness to prove themselves to all university employees during their education, and to their managers while engaged in the career domain. This finding contrasts with the findings of Al-Sleihat (2019), who found that graduates of Jordanian colleges of education take care of their external appearance to a moderate degree.

Furthermore, indicator (5), which states, "The graduate can lead work teams efficiently," is ranked twelfth and last among the indicators of the professional and ethical competency dimension, with a mean (3.85) and a descriptive rating of the means of employer responses that is high. This result explains the university's eagerness to keep up with the transition to a knowledge economy, as it encourages its students to transform knowledge and intellectual production into a knowledge economy represented by innovations.

(IAU) recently took first place by registering a patent under the name Eco Tree, which is concerned with wind energy generation and air purification. In the same year, Imam Abdulrahman bin Faisal University's Department of Civil Engineering and Construction received two awards for producing Ultra-High-Performance Concrete UHPC in a competition organized by King Fahd University of Petroleum and Minerals with the participation of three universities: (IAU), King Fahd University of Petroleum and Minerals, and Prince Muhammad bin Faisal University (IAU, 2020).

Furthermore, the administration of the (IAU) (2020) has also indicated that its students have registered for seventy-seven patents as follows: one patent in 2015, five patents in 2016, 14 patents in 2017, 42 patents in 2018, and 15 patents in 2019, as shown in the following figure:

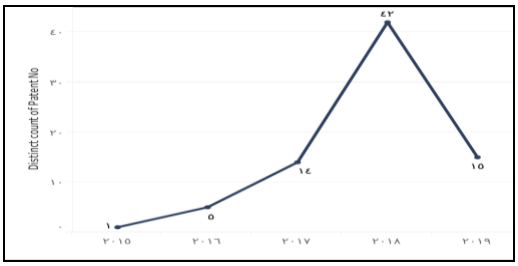

Figure 1
Patents at Imam Abdulrahman bin Faisal University (Source: IAU)

Furthermore, this could be because some highly qualified faculty members use a modern teaching method based on problem-solving and critical thinking, which can raise students' thinking levels to higher levels. This is precisely what (IAU) has pursued in recent years, with the Deanship of Academic Development and the Agency for Student Affairs emphasizing active learning and critical thinking in their new plans.

Dimension Four: Technical and digital competency

Table 6
Means, standard deviations, percentages, ranks, and graduate competency level indicators of the employers' responses of the technical and digital competency arranged in descending order according to means

No. of Indicator	Rank	Text of Indicator	M	S D	Percentage	Degree
1	1	The graduate can use technical information in a scientific and creative manner.	4.02	0.87	80.4%	High
2	2	The graduate can employ digital technology in the domain of specialization.	3.97	0.90	79.4%	High
4	2	The graduate seeks to develop the technical capabilities through various courses.	3.97	0.90	79.4%	High
5	3	The graduate constantly looks for digital applications that contribute to the development of work.	3.87	0.97	77.4%	High
3	4	The graduate has legal knowledge of the digital technology domain.	3.63	1.02	72.6%	High

Table (6) shows the means, standard deviations, percentages, ranks, and the graduate's competency degree for the technical and digital competency dimensions. It is evident that the means of indicators of the technical and digital competency dimension for (IAU) graduates from the point of view of employers are between (4.02-3.63), which is a high degree.

In particular, indicator (1), which states, "The graduate can use technical information scientifically and creatively," is ranked first among the indicators of the technical and digital competency dimension, with a mean (4.02) and a high descriptive rating of the means of employer responses. This outcome explains how graduates received specialized education in the use of technology in their field of specialization. As a result, in addition to the diplomas and intensive training courses offered by the Deanship of the Preparatory Year and Supporting Studies in Computer for employees and students, the graduate can usually use technical information scientifically and creatively (IAU).

Similarly, indicator (3), which states, "The graduate has legal knowledge of the digital technology domain," is ranked fourth and last among the indicators of the digital technical competency dimension, with a mean (3.63) and a high descriptive rating of the means of employer responses. This finding is explained by the fact that all university

employees, both male and female students, receive legal awareness in the domain of using technology through technical courses offered by the university, such as cyber security, digital security, and digital citizenship, in order to address the threats of hackers and protect their electronic information. This discovery also explains the university's desire to train professional students in electronic operations, as evidenced by the establishment of the Electronic Security Program and the Digital Forensic Analysis Program (Imam Abdulrahman bin Faisal University, 2018).

Second: Findings related to the Second Research Question

Does the level of competency of (IAU) graduates differ according to the graduate specialization domain (educational, administrative, health, engineering), from the point of view of employers**?**

To answer this question, the means and standard deviations, of the employers' responses are calculated according to the specialization of the graduate variable around the four dimensions. Also, One-Way ANOVA Analysis is used to determine whether there are any statistically significant differences in the employers' responses. To determine the direction of the differences between the means of the responses of employers attributed to the variable of the domain of specialization in the competency of the graduate for each of the dimensions, the Scheffe' Test, alongside the Least Significant Test (LSD) Difference Test is used. the overall means of the four dimensions are (3.89 - 4.26), and it is within the degree of (high-very high). Also, One-Way ANOVA Analysis is used to determine whether there are differences among the means as shown in Table (7).

Table 7
One-Way ANOVA test to determine the differences between employers' responses to the graduate specialization domain, along with the graduate's overall competency

Dimension	Source of Variation	Sums of Squares	Degrees of Freedom	Mean Square	F	Sig
Cognitive Competency	Between Groups	7.583	3	2.528	5.872	0.001*
	Within Groups	107.616	250	0.430		
	Total	115.199	253			
Personal Competency	Between Groups	4.795	3	1.598	3.330	0.020*
	Within Groups	119.996	250	0.480		
	Total	124.791	253			
Professional and Ethical Competency	Between Groups	7.305	3	2.435	8.078	0.000*
	Within Groups	75.363	250	0.301		
	Total	82.668	253			
technical and digital competency	Between Groups	5.841	3	1.947	3.120	0.027*
	Within Groups	156.036	250	0.624		
	Total	161.877	253			
Graduate's Overall Competency	Between Groups	5.631	3	1.877	5.455	0.001*
	Within Groups	86.021	250	0.344		
	Total	91.652	253			

* Statistically Significant Level at ($\alpha \geq 0.05$)

The One-Way ANOVA test is shown in Table (7) to determine the differences between employers' responses to the graduate specialization domain variable (educational, administrative, engineering, and health) for the four dimensions (cognitive competency, personal competency, professional and ethical competency, technical and digital competency), as well as the graduate's overall competency. According to Table (8), there are statistically significant differences between employers' responses to the graduate specialization domain variable about each of the four competency dimensions of (IAU) graduates at the significance level (0.05), as well as the graduate's overall competency varying according to the graduate specialization domain variable where all values are at the significance level (0.05). Post-comparison tests are used to determine the differences between employers' responses to the graduate specialization domain variable and the graduate's overall competency in the four dimensions.

Dimension One: Cognitive Competency

There are statistically significant differences in employer responses at the significance level due to the specialization of the graduate variable (educational - engineering) in the cognitive competency dimension (0.05). The significance level is (0.001) in favor of graduates of the educational specialization at (IAU), which is regarded as the highest mean (4.13). This is because the education process is based on the quantity of knowledge and the practical application of that knowledge in transferring it to students in various forms, methods, and strategies during their continuous teaching, as opposed to engineering specialization, which is based on the application of what has been learned in practice in plans and projects. This finding is consistent with the findings of (Al-Dajni et al., 2018), who found that graduates of the cognitive dimension covered by the study have a high level of cognitive competency, with a mean of (3.48).

Furthermore, there are no statistically significant differences at the significance level (0.05) between the employers' responses due to the specialization of the graduate variable on the cognitive competency dimension between (the administrative specialization) and other specializations, where all significance level values are (> 0.05). This is because the administrative specialization academic courses are part of the academic courses for other disciplines, which may be attributed to the fact that administrative work is an integral part of the other engineering, health, and educational disciplines.

Furthermore, due to the specialization of the graduate variable on the cognitive competency dimension between (educational - health), there are no statistically significant differences between employers' responses at the significance level (0.05), where the significance level value is (> 0.05). This is due to the nature of the health and educational specializations, in which knowledge changes and developments occur at a rapid pace, necessitating the search for everything new in these two specializations, as well as their continuous renewal in comparison to other specializations. This finding is consistent with (Al-Dajni et al., 2018), who discovered that graduates of the cognitive specialization studied have a high level of cognitive competency.

Dimension Two: Personal Competency

There are statistically significant differences in employer responses at the significance level (0.05) due to the graduate variable's specialization on the personal competency dimension between (educational-engineering), where the significance level value is (0.006), in favor of the graduate with the highest mean (4.14). This could be because the educational environment at the university is similar to the educational environment in the practical application stage, allowing the graduate to fine-tune his or her personal skills in the educational domain. This finding is consistent with the findings of (Al-Dajni et al., 2018), who discovered that graduates in the educational specialization studied have a high dimension of personal competency, with a mean of (3.62).

Furthermore, there are statistically significant differences at the significance level (0.05) between employers' responses on the personal competency dimension between (education-health), where the significance level value is (0.018), in favor of graduates of the educational specialization with the highest mean (4.14). This could be due to the fact that training courses for a graduate in the educational specialization while working in the educational specialization are related to his educational specialization, whereas courses in the health specialization are chosen by the employee to obtain the hours required for professional achievement. This finding is consistent with the findings of (Al-Dajni et al., 2018), who found that graduates in the educational specialization studied have a high level of personal competency, with a mean of (3.62).

Furthermore, no statistically significant differences at the significance level (0.05) exist between the employers' responses due to the specialization of the graduate variable on the personal competency dimension between (the administrative specialization) and other specializations, where all significance level values are (> 0.05). This may be due to the fact that personal administrative and leadership skills are among the personal skills acquired by graduates of engineering, health, and educational majors in addition to their specialization. This may also be attributed to the fact that (IAU) is founded on the principle of justice in providing the same cultural, social, and educational activities for all disciplines that define the personality of its students without discrimination between specializations

Furthermore, there are no statistically significant differences at the significance level (0.05) between employers' responses on the personal competency dimension due to the specialization of the graduate variable (health - engineering), where the significance level value is (> 0.05). This is because the training courses for graduates of the two specializations of health and engineering are influenced by personal preferences.

Dimension Three: Professional and Ethical Competency

There are statistically significant differences at the significance level (0.05) among employers' responses due to the specialization of the graduate variable (educational - engineering) on the professional and ethical competency dimension, where the significance level value is (0.004) in favor of graduates of the educational specialization at (IAU), which is considered the highest mean with (4.44). This may be attributed to on-the-job training courses offered by the Ministry of Education in collaboration with

other educational institutions such as universities, as well as the Professional Institution for Vocational Development and Training, as opposed to engineering specialization, which is dependent on personal development. This finding differs from Al-(2019) Sleihat's study, which found that graduates of educational colleges have medium-level professional skills. It also differs from Damanhouri's (2013) study in that it recommends that students in educational speculation acquire scientific and professional skills. It is also inconsistent with the findings of (Anastasiu et al., 2017), which show a decrease in the extent to which engineering graduates acquire professional skills.

Furthermore, there are statistically significant differences at the significance level (0.05) between the employers' responses due to the specialization of the graduate variable (educational and health) on the professional and ethical competency dimension, where the significance level value is (0.000), and in favor of graduates of the educational specialization at (IAU), which is considered the highest mean with (4.44). This result can also be attributed to the impact of intensive training courses, the presence of clear evaluation criteria from the educational supervisor and school leader, and the level of student satisfaction. On the contrary, there are no clear evaluation criteria in the health specialization; however, it is evaluated based on the degree of discipline, attendance, and reception of patients without direct supervision, as well as work follow-up. In addition, no metric assesses patients' satisfaction with the doctor's services. This result differs from Damanhouri (2013)'s study in the educational specialization, which emphasizes the low professional skills of graduates in the educational specialization, whereas Al-Sleihat (2019) indicates that they have medium professional skills.

Furthermore, on the professional and ethical competency dimension, there are no statistically significant differences at the significance level (0.05) between employer responses due to graduate variable specialization between (administrative and other specializations), where all significance level values are (> 0.05). This is because students take the same academic courses that deal with professional and ethical issues. This finding is consistent with (Madgali & Taylor, 2015), which emphasizes the low level of professional skills of all its graduates across all specializations and thus recommends expanding its professional programs, as well as (Raquel et al., 2019), which emphasizes the need for all its graduates to have a mix of technical and professional skills.

Dimension Four: Technical and digital competency

There are statistically significant differences in employer responses due to graduate specialization on technical and digital competency between (educational specialization and all other specializations), where all significance level values are (0.05), in favor of the graduate of the educational specialization with the highest mean (4.07). This could be attributed to the nature of the educational specialization, which motivates graduates to learn everything new in the specialization of technology, as the educational specialization emphasizes the use of technology during the educational process. This finding differs from that of Damanhouri's (2013) study, which claims that use of modern technology is one of the cognitive domain skills required for graduates.

Dimension Five: Graduate's Overall Competency

There are statistically significant differences at the significance level (0.05) between employers' responses due to the specialization of the graduate variable on the graduate's overall competency between the two specializations (educational - engineering), where the significance level is (0.004), in favor of graduates of the educational specialization, which is considered the highest mean with (4.22). This study partially agrees with the study of (Anastasiu et al., 2017), which emphasizes the low skills of engineering graduates, particularly technical skills, innovation skills, and lifelong learning.

This result, however, differs moderately from the study (Al-Dajni et al., 2018; Al-Sleihat, 2019) that deals with educational specialization and finds that the level of competency of its graduates is of a medium degree. This result also differs from the study (Aloysius et al., 2018; El Bahnasawy, 2018; Damanhouri, 2013; Asiri & Tayeb, 2018), which deals with educational specialization and the results show the graduates' low level of competency.

Similarly, there are statistically significant differences at the significance level (0.05) between employers' responses about the graduate's overall competency between the two specializations (educational - health), where the significance level value is (0.048), in favor of graduates of the educational specialization with the highest mean (4.22). However, it differs to some extent from studies (Al-Dajni et al., 2018; Al-Sleihat, 2019) that deal with educational specialization, and their findings show that its graduates have a medium level of competency. This result also differs from that of the study (Aloysius et al., 2018; El Bahnasawy, 2018; Damanhouri, 2013; Asiri and Tayeb, 2018), indicating that the educational specialization and its results also demonstrate the low competency of its graduates.

Importantly, based on employer responses, graduates of Imam Abdulrahman bin Faisal University's faculties of educational disciplines are ranked as the best graduates of faculties when compared to health and engineering graduates. This was confirmed over the course of three years, during which they received the highest scores in the competency test, in addition to intensive on-the-job training courses in their field of specialization. Institutions do not require their employees to take training courses in their field of specialization, as opposed to engineering and health majors, but rather to attend several training hours for professional achievement, regardless of the course's domain.

Furthermore, where all function level values are (> 0.05), there are no statistically significant differences at the significance level (0.05) between employers' responses about the graduate's overall competency due to the administrative specialization and other specializations. This is because (IAU) is known for its justice and transparency in providing training courses for all disciplines without exception, which will refine each graduate's administrative and leadership personality.

RECOMMENDATIONS

In light of the preceding studies and findings, the study recommends working to enable (IAU) graduates to analyze data or digital information, focusing on enabling (IAU)

graduates to master the English language skill, both spoken and written, by making it a prerequisite in the preparatory year and passing one of the requirements for moving to the specialization stage, and strengthening (IAU) graduates' ability to lead teams competently through training courses, improving the level of creative ideas to develop work among (IAU) graduates by paying attention to the continuous development of academic courses to suit the requirements of the changing labor market, thus contributing to raising the level of their creative thinking, strengthening the legal knowledge of the field of digital technology among (IAU) graduates by intensifying cybersecurity and digital citizenship courses, making a partnership contract between the private sector and higher education institutions, so that students may work part-time or during vacation periods in the same field of specialization, which contributes to the student's familiarity with the work environment and planning skill, activating cooperation between employers and (IAU) by assigning the teaching of some academic and training courses to employers, particularly those with practical application; directly related to the labor market, creating a database of jobs needed in the labor market and the qualifications needed for them, and linking it to service institutions to make it a channel of communication between labor officials and job seekers who are (IAU) graduates, increasing the qualitative competency of academic program plans, training courses workshops, lectures, and scientific seminars, and benefiting from international experiences in matching the outputs of higher education to the requirements (Torres, 2022; Puchongprawet, & Chantraukrit (2022).)

CONCLUSION

In a nutshell, the purpose of this research paper is to investigate the reality of (IAU) graduates' competency to meet labor market requirements from the perspective of employers in service and production organizations in the Eastern Region. According to the findings, the level of overall competency of (IAU) graduates is high from the perspective of employers, while the level of professional and ethical competency is very high, and the dimensions of personal competency, cognitive competency, and technical and digital competency are high. The findings also show that there are statistically significant differences at the significance level (0.05) between the mean of employers' responses about the level of overall competency of (IAU) graduates based on the difference in the graduate specialization domain in favor of educational domain graduates.

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