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Obstacles to Developing Future Skills among Najran University Students

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Abstract

The study aims to identify the main obstacles facing Najran University in developing future skills among its students from the perspective of experts and faculty members. It utilized a descriptive approach, analyzing the prominent obstacles hindering universities, with a focus on Najran University. A questionnaire consisting of 40 statements distributed across three domains was constructed: obstacles related to university policies supporting skills, obstacles related to the university environment, and obstacles related to infrastructure. The questionnaire was administered to a sample of faculty members at Najran University, totaling 114 participants. The study revealed several results, including the following: the average score for the total degree of obstacles to the development of future skills among Najran University students was 3.57, indicating a high level. The first domain (obstacles related to university policies) had the highest impact as a hindrance to future skills development among students, followed by the second domain (obstacles related to the university environment) with a high impact, and then the third domain (obstacles related to infrastructure) with a moderate impact.

Keywords: *obstacles, Najran University, faculty members, future skills.*

Introduction

Today, the world witnesses rapid cognitive and technological development, along with fundamental changes and transformations that extend their effects to include economic, social, service, and educational institutions. The world stands firmly on the threshold of a major revolution that differs from its predecessors in the depth of its impacts, the degree of its interconnections, its complexities, and its ties to various aspects of human life. This revolution has changed many details of human life and will bring about a radical and qualitative change in various aspects and features of human life. It is now known as the "Fourth Industrial Revolution."

If the fundamental characteristic of the first industrial revolution was the introduction of mechanization, steam engines, and factories, the fourth industrial revolution presents more sophisticated, modern, specialized, and intelligent concepts. It describes the fluid boundaries between the material, digital, and biological worlds (Jasmin, 2021, p. 53). As expressed by Klaus Schwab at the World Economic Forum, "This revolution will be driven largely by the convergence of digital, biological, and physical innovations" (Schwab, 2016, p. 22). It is a blend of developments in artificial intelligence (AI), robots, the Internet of Things (IoT), virtual reality (VR), augmented reality (AR), computational

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systems, big data, distributed computing, online networks, 3D printing, genetic engineering, quantum computing, and other technologies. In general, it will work to transform the traditional education system into a new type that relies on electronic curricula, computerized teaching and evaluation methods, smart classrooms, and digital teachers. It will make future learning more intelligent, transferable, global, and virtual (Shahroom & Hussin, 2018, p. 324).

In the same context, its implications on higher education have raised a series of questions that can be summarized as follows: Are universities, in their current academic positions, equipped to face the challenges of this revolution? Is there a change in the structures of these universities and their strategies to keep up with this revolution? Do educational policies establish effective strategies for higher education to confront the challenges of the upcoming stage? Are universities providing their students with the necessary skills for this stage and preparing them for future job engagement? (Jung, 2020, p. 143).

In light of this, education is the pathway for quick adaptation to the challenges of the Fourth Industrial Revolution. The challenge lies in preparing students and the workforce to deal with technological advancements. The teachers of the future need to possess the competencies to engage with technology and interact with students effectively. This requires a rethinking of the preparation and training of university teachers, as well as the targeted learning outcomes, teaching processes, learning, evaluation, and the promotion of roles for artificial intelligence and soft skills. These skills will become significantly important in the future, fostering the ability to solve problems in virtual teamwork and enabling work in mixed teams composed of both humans and machines (Peters & Jandrić, 2019; Butler, 2018).

This aligns with what Gleason (2018), presented at the World Economic Forum (WEF), explaining the following: The top ten skills that will be prioritized by employers by 2030 are as follows: the ability to solve complex problems, critical thinking, people management, coordinating with others, emotional intelligence, judgment and decision-making, service orientation, negotiation, cognitive flexibility. This poses a challenge for teacher education institutions to produce professional teachers with good personalities, mastery of the subject matter, skills in using media, various teaching methods, and effective communication. Teacher education institutions should be able to graduate teachers with four competencies: personal, social, educational, and professional competencies needed by teachers in the era of the Fourth Industrial Revolution.

A study conducted by Peter and Jandrić (2019) found that higher education institutions still struggle with a state of rigidity and stereotypical approaches, hindering their ability to equip students with the necessary skills for future professions. These institutions need to swiftly transition to new university models that align with the Fourth Industrial Revolution, such as the "Open Model for the Digital University," the "Creative University" model, and the "Digital University" model. The study also highlighted modern insights on how to address technological unemployment resulting from the Fourth Industrial Revolution. Malkawi (2020), Al-Sagheer (2021), and Ateiba (2021) revealed the limited role of higher education and training, according to university professors. They found insufficient empowerment of students and trainees with future skills that enable them to secure future jobs and adapt to them. There was also a lack of monitoring and analysis of the current reality and anticipation of the future of education and its relationship with the job market. In addition, there was a deficiency in developing future skills that meet the requirements of new jobs in the global job market and a lack of alignment between higher education outputs and the demands of the job market.

A report from the Organization for Economic Cooperation and Development (OECD, 2019) on the future of education and skills in 2030, prepared by a group of policymakers and academic experts from various countries, including the Kingdom of Saudi Arabia, addresses two key questions:

1. What knowledge, skills, attitudes, and values do students need today to thrive and shape their world in the future?

2. Can education systems effectively develop these knowledge, skills, attitudes, and values?

The report emphasizes that universities face a significant challenge in preparing students for jobs that have not yet been created, technologies that have not yet been invented, and solving problems that have not yet been anticipated. The responsibility will be shared in seizing opportunities and finding solutions. To prepare students for the future, the focus should be on the concept of competence rather than just knowledge and skills. This concept involves integrating knowledge, skills, attitudes, and values to meet complex requirements.

According to the report from the World Government Summit (2019, p.4), estimates indicate that countries will face a significant shortage of individuals with technological skills in the next five years, such as complex data analysis and web development. There will be a substantial gap in multi-disciplinary skills among a large portion of the workforce. The report highlights a lack of transparency in education and training regarding future skills. Schools and universities lack content related to these skills, and there is an absence of systematic training on future skills in workplaces.

Statement of the problem

Despite the recent improvement in the employment situation of Saudi youth, especially since 2019, as a result of the Kingdom's efforts to empower the youth, there are still two significant gaps related to youth employment. The first gap is the unemployment rate among young people compared to the total youth population. This gap is attributed to the mismatch between qualifications and the skills demanded by the job market, a result of the shortcomings in the education system, referred to as the "skills challenge." This challenge is linked to the context of the skills and experiences acquired by university students, determined by factors such as available opportunities, personal readiness, individual aspirations, and financial resources. This challenge becomes more apparent when the job market demands specific skills that young people lack or possess but are not up to the required level and are not in line with the evolving needs of the job market. It is also linked to factors affecting working conditions, such as legislation, regulations, and the business cycle. Factors related to usability, including education, training, and professional experience, are also crucial (National Transformation Program, 2020).

Najran University has taken significant steps towards meeting the requirements of Saudi Vision 2030, emphasizing the importance of investing in education and training, and improving the quality of its inputs, processes, and outputs. The university has obtained full academic accreditation from the National Commission for Academic Accreditation and Assessment (NCAA). However, it still faces challenges regarding the employment of its graduates in the Saudi job market. According to a recent report from the National Labor Observatory, Najran University ranks 18th out of 28 government universities in terms of employment rates, with a rate of 36% in 2021 (National Labor Observatory Report, 2021). This raises questions about how to enhance the quality of graduates and the skills they possess. Therefore, this research aims to identify the main obstacles that may affect the university's performance in its role of enhancing future skills for students, enabling them to secure jobs in both the public and private sectors.

Based on the information provided, it is evident that there are several challenges and obstacles negatively impacting the role of universities in developing future skills for their students. The current study aimed to identify the obstacles facing Najran University in developing future skills for its students from the perspectives of experts and faculty members at Najran University. This study can be beneficial for university leaders, administrators, and faculty members in gaining insights into the primary obstacles

affecting the university's performance in its role of developing future skills for students. Subsequently, it can inform the decision-makers about the necessary actions and measures to address these challenges. The research problem revolves around answering the following two questions:

1. What are the obstacles facing Najran University in developing future skills for its students from the perspective of experts and faculty members at Najran University?

2. Does the vision of experts and faculty members at Najran University regarding these obstacles differ based on certain variables such as gender (male or female) and specialization (scientific or theoretical)?

Review of literature

Through the analysis of literature and previous studies, it becomes evident that numerous challenges and obstacles may hinder the performance of universities in developing the necessary skills for the future of their students. The most significant of these obstacles can be summarized as follows:

Obstacles related to university policies that support skills

Reiljan and Paltser emphasize that university policies should work towards enhancing future skills, providing a conducive environment, and offering financial support to encourage educational leaders and faculty members to design specialized educational programs for the development of a culture of creativity and innovation. They suggest aligning the competencies and skills of this culture with the academic specialization competencies and skills of students (Reiljan & Paltser, 2015, p. 251). On the other hand, universities should conduct regular surveys to identify the needs of employers and translate these needs into academic programs, skills, and competencies that students can acquire. Universities should take responsibility for finding answers to key questions related to their mission and future strategy, such as: Do they have strategies for the next ten, twenty, or fifty years? Do they possess promotional strategies for graduates? How is a university graduate perceived in the job market? Are graduates attractive to potential employers? What types of activities are expected by both students and employers regarding the required employability skills? Answering these questions poses significant challenges for universities, necessitating the formulation of a clear vision, mission, innovative policies, and strategies contributing to the national development project and fostering creativity and innovation.

Despite the significant attention given by Saudi universities, including Najran University, to the development of supportive policies for the future skills development of students. They include promoting and developing their skills and capabilities through encouraging creative thinking, developing policies and university procedures that foster innovation, focusing on projects aimed at fostering innovation, and advancing specialized scientific programs. Upon reviewing the university's policies, procedures, and activities related to encouraging students to acquire future skills, it was found that they do not receive adequate attention commensurate with the importance of this subject. This necessitates the adoption of advanced policies, methods, and new programs to enhance their effectiveness regarding students' future skills. This should be evident when the university formulates its strategies, plans, strategic objectives, and diverse educational programs. The university should take all necessary actions and measures to achieve this. Emphasis should be placed on improving the quality of educational outcomes by focusing on creative thinking skills in the university's programs, activities, and curricula, and presenting creative products from students and faculty members. This contributes to supporting the Kingdom's transition to a knowledge society, increasing satisfaction among beneficiaries of its graduates and university services. In this regard, several studies (Abdulrazak, 2019; Ibrahim, 2022; Khaja & Hafez, 2020) have pointed out the weak

response of Saudi university policies to the challenges of the Fourth Industrial Revolution and the acquisition of necessary skills for students to face it.

Reports indicate that 56% of the world's adult population lacks information and communication technology (ICT) skills or possesses only the skills necessary to perform basic tasks in a technology-rich environment. However, the youth are more proficient in information and communication technology than older generations. Skill policies should aim to enhance early learning, anticipate changing skill needs, respond to them more effectively, and promote the development of workers' skills. Moreover, policies should improve incentives for continuous learning (Cortesi et al., 2020, p. 2).

Obstacles related to the university environment

The university environment, with its policies, strategies, academic values, educational programs, curricula, teaching methods, institutional processes, educational resources, and student activities, is considered a crucial component for the development of future skills among university students. Universities are perceived as knowledge creators and fertile grounds for creativity and innovation in various fields. Knowledge is no longer an end in itself for universities; rather, their goal is the growth, utilization, and innovation of knowledge to contribute to serving society. This includes supporting innovation by generating new knowledge and contributing to the formation of a human capital capable of achieving competitiveness. This active role aims to achieve comprehensive societal development.

In the prevailing university environment, traditional culture remains deeply rooted, limiting educational opportunities for creative and innovative expression among students. There are few opportunities for teachers to think critically, engage in dialogue, and discuss their educational practices. Enhancing classroom environments that ensure an active learning setting to encourage students to harness creativity alongside other skills is a significant challenge faced by many universities. In addition, there is a lack of continuous professional development programs for faculty members, which is notably scarce in many countries (Eunice & Nielsen, 2017, p. 555).

Despite the widespread interest in soft skills among policymakers and educators, little is known about how students acquire these skills or the best way to teach them. For example, in the university environment, general skills are often taught in separate courses, such as communication skills, scientific writing, or presentation skills. Sometimes, they are integrated into academic subjects, such as a course on information retrieval as part of a research seminar. Research results from various studies suggest that general skills develop when specific pedagogical methods are used, such as active learning methods and group activities (Virtanen & Tynjälä, 2018, pp. 1-2).

Some universities face challenges in equipping university students with skills and competencies that go beyond traditional skills. Often, certain skills are designed by universities without a deep understanding of the actual skills required for future professions. Toner describes skills as "productive assets for the workforce existing in the organization and acquired through learning activities practiced in the university environment" (Toner, 2011, p. 1). These skills encompass personal, cognitive, and professional competencies, such as self-efficacy, emotional flexibility, personal motivation, discipline, self-confidence, self-awareness, loyalty, enthusiasm, punctuality, and work ethic. They also include specialized skills in information and communication technology required for students to learn in the digital age, communication skills (oral and written), collaborative work skills, leadership, teamwork, problem-solving, creativity, a desire to learn, and entrepreneurship (Meissner & Shmatko, 2019, p. 1278). A study by Armstrong (2016) identifies several obstacles to developing future skills in higher education, including slow response to external challenges, resistance to change, faculty's lack of innovation skills, overlapping tasks, limited funding resources, and insufficient facilities to support and develop innovation.

A study by Ahmad (2020) highlighted the universities' weakness in providing students with skills and competencies crucial for the future job market. These skills include problem-solving, critical thinking, creativity, personnel management, leadership, coordination with others, emotional intelligence, decision-making ability, negotiation, and cognitive flexibility. Another study by Gonzalez-Perez et al. (2022) emphasized the lack of attention to these skills by teachers and universities. In addition, a study by Maamar and Alfaiz (2022) investigated students' perspectives in a Saudi university regarding their preparedness for future professions and the acquisition of future skills. The results indicated students' inadequacy in preparing for fields associated with working with robots, systems enhanced with artificial intelligence, drone aircraft leadership teams, and in acquiring skills such as stress management, time management, and creativity. Moreover, Teng et al. (2019) conducted a study on students in China and Malaysia to explore their university experiences in acquiring employability skills and readiness for the job market. The results revealed that the university environment contributed to developing students' skills, especially in Malaysian universities, but there was a shortfall in equipping students with future employability skills in both countries.

A survey conducted by Eddiebal Layco (2022) aimed to understand the perspectives of experts on the readiness competencies and skills of university mathematics teachers for technological challenges. The findings revealed that these teachers had low levels of competency in teaching, particularly in digital competencies. Digital competencies, such as their ability to integrate advanced technologies into mathematics education, were identified as the most deficient. The results also indicated that mathematics teachers exhibited a low level of skills in advanced technologies like industrial robots, interactive systems, virtual and augmented realities, and learning management systems.

Doucet et al. (2018) point out that university teaching methods are still conventional and traditional, necessitating the adoption of innovative teaching methods that rely on advanced educational technology. These methods should work to enhance comprehensive and integrated student growth, fostering high-order thinking skills such as design thinking, problem-solving, and data analysis through the use of artificial intelligence applications as an advanced teaching methodology. In addition, these methods should support self-directed, collaborative learning with peers and teachers, incorporating augmented and virtual reality technologies, as well as the Internet of Things, in learning environments to enhance student learning.

A study by Virtanen and Tynjala (2018) highlights a positive correlation between teaching methods and the learning of general skills. Teaching practices that involve collaboration, interaction, characteristics of constructive learning environments, and integrated teaching methods have a positive relationship with the learning of general skills such as decision-making, creativity, and problem-solving. On the other hand, traditional forms of university teaching, such as reading, lecturing, and individual work, are negatively related to learning general skills. Effective teaching methods can enhance students' self-efficacy through five distinguishing abilities: curiosity, creativity, flexibility, independence, and proactivity, thereby promoting creative thinking and innovative behavior (Hajar Siti, 2018, p. 39).

A study conducted by Al-Rabee (2018) indicates a weakness in activating assessment strategies to develop 21st-century skills among students. These skills include the ability to analyze information and use it effectively, such as navigating digital sources, identifying common logical fallacies, presenting claims and supporting them, tackling complex problems and issues, as well as maintaining focus and engaging in both divergent and convergent thinking, and employing a problem-solving protocol.

Obstacles related to infrastructure

Infrastructure is one of the key determinants in building and developing future skills in higher education. It encompasses computer systems and technology, scientific

laboratories, academic libraries, business and technology incubators, research centers, information networks, databases related to research, development, and innovation activities, providing grants and support for student innovation projects, training expenses, scientific journals, information resources, and physical assets expenditures. In addition, it involves the existence of entities ensuring intellectual property rights and patents for student and faculty innovations.

The virtual and physical infrastructure of the university should provide direct access to the latest information related to education, research, entrepreneurship, and innovation. It should also offer facilities and support for startups and other entrepreneurial activities. Higher education institutions must work towards providing infrastructure to enhance future skills in students through the following (Roffeei et al., 2016, p. 42):

- Identifying diverse needs (technologies, tools, equipment, labs) to meet the various learners' requirements in acquiring practical skills related to their specialization and profession.

- Ensuring learners have access to relevant technologies and possess the necessary skills to maximize their benefits.

- Implementing institutional changes to ensure teachers, IT staff, and administrators work effectively together to support students' future skills.

- Building supportive and trusting relationships between relevant stakeholders in skill development processes (students, faculty, support staff, IT staff, administrators, and employers).

- Diversifying funding sources to provide a supportive infrastructure for future skills.

- Expanding frameworks of relationships and partnerships with entities related to building and developing students' future skills.

- Marketing graduates to external community institutions and business sectors.

Methods

The descriptive-analytical method was employed in this study. Literature related to the topic was analyzed, followed by field research involving the preparation of a questionnaire aimed at identifying the obstacles to the development of future skills for students at Najran University from the perspective of faculty members. The questionnaire comprised 40 items categorized into three domains. The first domain addressed obstacles associated with university policies, the second domain related to the university environment, and the third domain was dedicated to infrastructure-related obstacles. The questionnaire was distributed online through platforms such as social media, email, and Blackboard. Subsequently, the collected data were analyzed and interpreted.

Validity and reliability

The current research utilized a questionnaire as a data collection tool from the perspective of the faculty. The questionnaire consisted of two sections, with the first section dedicated to basic information about the sample. The second section included a set of items aimed at diagnosing the obstacles that the university faces in developing future skills. These items were categorized into three domains, where the first domain addressed obstacles associated with university policies, the second domain related to the university environment, and the third domain was dedicated to infrastructure-related obstacles. The validity and accuracy of the questionnaire were ensured by presenting it to a group of specialists and academics. This was done to verify the linguistic formulation, safety, and accuracy of the questionnaire items. In addition, the reliability of the questionnaire was

confirmed by calculating internal consistency using Cronbach's alpha, as shown in Table 1.

Table 1. Reliability of the questionnaire

domain	No of items	Cronbach's alpha Coefficients
the first domain: Obstacles related to university policies	17	0.769
The second domain: Obstacles associated with the university environment	16	0.732
The third domain: Obstacles related to infrastructure	7	0.803
Scale	40	0.779

Table 1 shows that the consistency coefficients for the dimensions of the questionnaire ranged from 0.732 to 0.803, indicating consistency among the questionnaire dimensions. The Cronbach's alpha coefficient for the entire tool was 0.779, indicating a high level of homogeneity and consistency in the questionnaire. Table 2 illustrates the calculation of Pearson's correlation between items within each domain and the domain to which they belong.

Table 2. Validity of the questionnaire

first domain				second domain				third domain	
items	Persons Correlation	items	Persons Correlation	items	Persons Correlation	items	Persons Correlation	items	Persons Correlation
1	0.611**	9	0.532*	1	0.497*	9	0.514*	1	0.627**
2	0.663**	10	0.666**	2	0.601**	10	0.532*	2	0.533*
3	0.701**	11	0.566**	3	0.498*	11	0.636**	3	0.645**
4	0.512*	12	0.817**	4	0.536**	12	0.603**	4	0.604**
5	0.636**	13	0.619**	5	0.549**	13	0.493*	5	0.565*
6	0.614**	14	0.486*	6	0.476*	14	0.579**	6	0.627**
7	0.507*	15	0.522*	7	0.527*	15	0.601**	7	0.661**
8	0.626**	16	0.656**	8	0.512*	16	0.614**		
9	0.482*								

(*) Significant as 5% Level, (**) Significant as 1% Level

Through Table 2, it is evident that the correlation coefficients for the questionnaire items are all statistically significant. This result indicates a statistical association between these items and the domains to which they belong, affirming the consistency and validity of the questionnaire for application.

Sample profile

The final version of the questionnaire was sent to the faculty members via email and social media. It was distributed to a total of 156 faculty members, including both theoretical and scientific disciplines. They were requested to respond to each item in the questionnaire, indicating their level of agreement with each stated obstacle. A total of 114 responses were collected from the faculty members. Descriptive statistical tests (means, standard deviations, ranks) were employed to determine the level of agreement among the

faculty members regarding the identified obstacles. Furthermore, a t-test was utilized to explore any significant differences in response levels based on gender and specialization (theoretical vs. scientific). Table 3 illustrates the distribution percentages of the sample according to gender and specialization.

Table 3. Distribution of the study sample

Variable		No	Percent
Gender	Male	73	64%
	Female	41	36%
Specialization	Theoretical specializations	62	54.4%
	Scientific specializations	52	45.6%
Total		114	100%

Data Analysis

The data were analyzed using SPSS V 25.0 software, and the categories in which the mean responses of the research sample fall on the obstacles were estimated according to Table 4.

Mean Category	Response level
1.00 : 1.80	Very Low
1.81: 2.60	Low
2.61: 3.40	Moderate
3.41: 4.20	High
Above 4.21	Very High

Results and discussion

Research question 1: What are the obstacles facing Najran University in developing future skills for its students from the perspective of experts and faculty members at Najran University?

The means, standard deviations, and ranks for the level of agreement of the research sample on the university's role in enhancing employability were calculated, as shown in Table 5.

Table 5. Means, standard deviations, and ranks for the level of agreement of the research sample

domain	mean	standard deviation	Rank	Response level
the first domain: Obstacles related to university policies	3.63	0.11	1	High
The second domain: Obstacles associated with the university environment	3.61	0.20	2	High
The third domain: Obstacles related to infrastructure	3.33	0.05	3	Moderate
Scale	3.57	0.34	High	

Through Table 5, it is evident that the average score for the total degree of obstacles to the development of future skills for Najran University students was (3.57), at a high level. This result indicates that faculty members highly agree that these obstacles hinder the development of future skills among students. The result could be attributed to a lack of awareness of the importance of future skills culture, and its limited inclusion in university policies, resulting in limited practice within the university environment. In addition, there is a lack of necessary infrastructure for its development. This result aligns with the findings of studies by Malkawi (2020), Al-Sagheer (2021), Otaiba (2021), Peters & Jandrić (2019), Teng et al. (2019), and Ahmad (2020).

Faculty opinions varied in assessing the impact levels of these obstacles, with the first domain (obstacles related to university policies) being the most impactful hindrance to the development of future skills in students according to the sample. It was followed by the second domain (obstacles related to the university environment), which had an average score of (3.61) indicating a high impact level. The third domain had the least impact, with an average score of (3.33), indicating a moderate impact on hindering the development of future skills. This logical result indicates that university policies serve as a guiding source and provide a clear developmental framework, acting as a roadmap for university institutions toward improvement and development. When these supportive policies for skills are lacking, it is logical that the university environment would be poor in fostering the development of students' future skills, as well as the infrastructure.

To interpret the results related to faculty responses regarding the availability of obstacles associated with the first domain (obstacles related to university policies), the mean, standard deviation, and ranks were calculated, as shown in Table 6.

Table 6. Faculty responses regarding the availability of obstacles associated with the first domain (obstacles related to university policies)

Items	Mean	Standard deviation	Rank	Response level
Limited adoption of advanced policies by the university to support and develop future skills.	3.62	0.22	10	High
Limited efforts to promote a culture of acquiring and developing future skills.	3.49	0.10	11	High
Insufficient institutionalization of processes and practices related to the development of future skills.	3.40	0.08	13	Moderate
Inadequate inclusion of the development of future skills in the university's strategic plans.	3.77	0.08	7	High
Weak planning by the university for activities aimed at developing future skills.	3.88	0.16	5	High
Limited alignment of the university's actions with policies that make the development of future skills a natural part of its organizational culture.	4.03	0.11	2	High
Weak focus of university policies on leveraging government initiatives and providing opportunities for the development of future skills for its students.	3.47	0.10	12	High
Limited investment by the university's senior management in various behaviors (such as creativity, innovation, proactiveness, adventurousness, competitiveness, risk-taking, and independence) to implement strategies related to the development of future skills.	3.95	0.19	3	High

Insufficient adoption of strategies by the university for assessing, managing, and coordinating initiatives related to the development of future skills.	4.29	0.12	1	Very High
Weak capacity of the university to continuously develop its strategies to compete with other universities in providing a supportive university environment for the development of future skills.	3.68	0.15	8	High
Limited continuous review of policies supporting the development of future skills.	3.67	0.12	9	High
Limited monitoring and analysis of labor market variables and their impact on the demand for emerging skills.	3.89	0.02	4	High
Inadequate efforts to restructure academic programs to keep pace with technological advancements.	3.87	0.09	6	High
Limited channels of communication with institutions, companies, and employers to benefit from their experiences in this field.	3.08	0.20	17	Low
Limited university policies related to the employment of the results of scientific research for the development of future skills.	3.19	0.04	15	Low
Few research centers and units dedicated to studying the gap and alignment between university outputs and the requirements of the job market.	3.35	0.10	14	Low
Limited partnerships and coordination with specialized entities to improve the employability of graduates.	3.14	0.06	16	Low
Total degree	3.63	0.11	High	

From the results shown in Table 6, it is evident that faculty members agreed on the obstacles related to the first domain (obstacles associated with university policies) to a high degree. The average score for the entire domain was (3.63), indicating a high level of agreement. The results also indicate consistency in the opinions of the faculty members, with a standard deviation of (0.11). However, there is variation in faculty agreement on the obstacles within this domain, with average agreement scores ranging from (4.29 to 3.08). These averages fall between low and high agreement levels. The results show that faculty members strongly agreed with one obstacle, obstacle number (9), indicating "Limited adoption of strategies by the university for assessing, managing, and coordinating initiatives related to the development of future skills." They also agreed to a high degree on obstacle (11). Meanwhile, they expressed moderate agreement on one obstacle (3), and weak agreement on four obstacles. The highest level of agreement is for obstacle number (9), while the lowest level of agreement is for obstacle (14), indicating "Limited channels of communication with institutions, companies, and employers to benefit from their experiences in this field."

These results align with findings from studies such as Abdelrazak (2019), Ibrahim (2022), and Khaja and Hafez (2020), indicating a significant deficiency in the role of universities in adopting advanced policies to support and develop future skills in their students.

To interpret the results related to the responses of faculty members regarding the availability of obstacles associated with the second domain (obstacles related to the university environment), the mean, standard deviation, and ranks were calculated, as shown in Table 7.

Table 7. Responses of faculty members regarding the availability of obstacles associated with the second domain (obstacles related to the university environment)

Items	Mean	Standard deviation	Rank	Response level
Lack of practical and applied aspects in some university education programs.	3.77	0.08	6	High
Absence of effective training programs for students to acquire skills and experiences in relevant institutions.	3.88	0.16	4	High
Weak inclusion of future skills in the learning outcomes of courses.	4.03	0.11	2	High
Limited provision of a scientific atmosphere in the university that encourages students to acquire and develop future skills.	3.47	0.10	11	High
Insufficient awareness among faculty members about the importance of acquiring and developing future skills.	3.59	0.34	9	High
Limited use of teaching methods by faculty members that contribute to the acquisition and development of future skills for students.	3.79	0.13	5	High
Inadequate specialized professional development programs for faculty members on teaching future skills to their students.	3.15	0.12	15	Moderate
Limited inclusion of curriculum topics supporting the development of future skills in students.	3.74	0.25	7	High
Insufficient updating of curricula and learning outcomes to meet students' needs for acquiring future skills and align with labor market requirements.	3.89	0.18	3	High
Weak promotion of in-class and extracurricular activities at the university to develop students' future skills.	3.48	0.24	10	High
Limited organization of diverse scientific events, seminars, and workshops that foster students' future skills.	3.20	0.23	14	Moderate
Use of traditional methods in assessing student performance.	3.68	0.56	8	High
Reliance on lecture-based teaching methods.	4.26	0.17	1	Very High
Insufficient activation of academic counseling processes for students.	3.10	0.04	16	Moderate
Weak availability of a university environment focused on developing students' knowledge, skills, attitudes, and personal characteristics.	3.45	0.35	12	High
Limited implementation of modern teaching methods such as projects and team-based work.	3.39	0.12	13	Moderate
Total	3.61	0.15	High	

Based on the results presented in Table 7, it is evident that faculty members agree on the obstacles related to the second domain (obstacles associated with the university environment) to a high degree. The average value for the domain as a whole was (3.61), indicating a high level of agreement. The results also indicate a consensus among faculty members, with a standard deviation of (0.15). There is variation in faculty agreement on the obstacles within this domain, with average agreement ranging between (4.26 to 3.10). These averages fall between moderate and high agreement. The faculty members strongly agree on one obstacle, which is obstacle number (13), indicating "reliance on the lecture-based teaching method." They also express high agreement on 11 obstacles within the second domain, and moderate agreement on four obstacles, with the highest agreement obtained for obstacle (13) and the lowest for obstacle (14), which refers to "limited activation of academic counseling processes for students." These results align with studies such as Armstrong (2016), Eunice and Nielsen (2017), Ahmad (2020), Gonzalez-Perez et al. (2022), Maamar and Al-Faiz (2022), and Al-Rabie (2018), confirming the prevalence of traditional and conventional practices in the university environment, including objectives, curricula, teaching methods, evaluation, student activities, and academic counseling processes. This ultimately leads to the weakness of universities in equipping and developing future skills for their students.

To interpret the results related to the responses of faculty members regarding the availability of obstacles associated with the third domain (obstacles related to the university environment), the mean, standard deviation, and ranks were calculated, as shown in Table 8.

Table 8. Responses of faculty members regarding the availability of obstacles associated with the third domain (obstacles related to the university environment)

Items	Mean	Standard deviation	Rank	Response level
Insufficient budgets and financial support to encourage students to acquire future skills.	3.14	0.04	6	Low
Lack of incentives and rewards to motivate students to learn future skills.	3.26	0.06	3	Low
Limited availability of scientific laboratories, labs, computers, and necessary technology for practical training.	3.14	0.04	7	Low
Scarcity of business incubators, technology, and specialized research centers.	4.00	0.08	1	Moderate
Inadequate availability of information networks and databases related to research, development, innovation, and creativity activities.	3.17	0.05	5	Low
Limited provision of grants and aid for projects aimed at developing future skills, along with covering training expenses.	3.39	0.06	2	Low
Constraints on entrepreneurship and innovation activities.	3.21	0.04	4	Low
Total	3.33	0.05	Moderate	

Based on the results in Table 8, it is evident that faculty members agree on the obstacles of the third domain (obstacles related to infrastructure) to a moderate degree. The average value for the domain as a whole was (3.21), indicating a moderate level of agreement. The results also suggest a consensus among faculty members, with a standard deviation of (0.05). There is variation in faculty agreement on the obstacles within this domain, with average agreement ranging from (4.00 to 3.14). These averages fall between low and

moderate agreement. The results indicate that faculty members moderately agree on one obstacle, which is obstacle number (4), indicating "limited availability of business incubators, technology, and specialized research centers." They also show weak agreement on (6) of the obstacles within the third domain. The highest level of agreement was obtained for obstacle number (4), indicating "limited availability of business incubators, technology, and specialized research centers." The lowest level of agreement was for obstacle number (3), indicating "limited availability of scientific laboratories, labs, computers, and necessary technology for practical training." These results align with the findings of previous studies such as Malkawi (2020), Al-Sagheer (2021), Atiyeh (2021), Peters and Jandrić (2019), Teng et al. (2019), and Ahmad (2020). They collectively highlight the inadequacy of efforts to provide the necessary infrastructure for teaching and training students in future skills.

Research question 2: Does the vision of experts and faculty members at Najran University regarding these obstacles differ based on certain variables such as gender (male or female) and specialization (scientific or theoretical)?

The independent samples t-test was used to detect differences between two means, as illustrated in Table 9.

Table 9. T-test was used to detect differences between two independent means

Variables		T-test			
		mean	Std. deviation	t	Sign
Gender	Male	3.55	0.34	0.420	Not significant
	Female	3.59	0.37		
Specialization	Theoretical	3.64	0.35	0.1.87	Not significant
	Scientific	3.49	0.37		

From Table 9, it is evident that there were no statistically significant differences among the sample individuals based on gender (males, females) or specialization (theoretical, scientific). This result may be attributed to the participants' awareness of the existence of these obstacles, given their prevalence in most colleges, and perhaps due to the similarity of the university environment and the influencing factors therein.

Conclusion

The purpose of this study was to identify the main obstacles facing Najran University in developing future skills among its students, according to the perspectives of experts and faculty members. The results indicated a high level of availability of these obstacles, especially in the university policies and environment. This result underscores the need to take measures and actions that can mitigate these obstacles and work towards developing future skills for students. This will contribute to improving the university's outcomes and bridging the gap between university outputs and the requirements of the job market.

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