

Original Article

The components affecting the educational performance of international students in Zanjan University of Medical Sciences

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Abstract

Background & Objective: Regarding the process of attraction and admission of international students, it is important to identify the academic challenges of international students and provide appropriate conditions towards meeting their academic and social needs. The present study aimed to identify the components affecting the academic status of international students in Zanjan University of Medical Sciences, Zanjan, Iran.

Materials & Methods: The experiences of international students were examined from October 2019 to February 2021 using conventional qualitative content analysis and in-depth semi-structured interviews.

Results: In this study, four main themes were extracted, including occupational concerns, obstacles of effective learning, managing students' academic and supportive affairs, and academic immigration affairs. In addition, 12 subthemes were achieved including the credibility of the university, graduation qualifications, educational content, curriculum planning, assessment and evaluation, foreign language stress, organization of administrative-educational affairs, e-learning support and infrastructure affairs, the organizational culture of internationalization, student welfare, and social affairs, consular affairs and banking and foreign exchange finance.

Conclusion: Components of language stress, the organizational culture of internationalization, the organization of administrative-educational affairs, student welfare and social affairs have been reported by other universities at home and abroad. However, considering the Covid-19 pandemic and banking sanctions against Iran, two new components of e-learning support/infrastructure affairs and banking and foreign exchange finance respectively, were achieved. Therefore, these new items need to be evaluated and provided with appropriate solutions.



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Introduction

Today, the importance and benefits of international communication in the education and research of universities is obvious to all, and strengthening the international student admission policy has become one of the key priorities of universities and higher education institutions (1). The number of international students attending a certain university is an important factor for the ranking of universities in the world (2). Therefore, "international student mobility" or ISM has attracted the attention of numerous policymakers and researchers as one of the most prominent signs of higher education internationalization. In 11 European countries,

including England, the ISM is one of the most developed national policy framework packages and has also been included in the political documents published in these countries (3, 4). According to the statistical data of Project Atlas, the number of international students worldwide has increased from 1.6 million in 2000 to 5.6 million in 2020. It is notable that most of these students are studying in English-speaking countries, from which the United States, England, Canada and Australia are among the top countries with the highest number of international students (5).

In Iran, the international medical education development program was designed in 2015 to

evaluate the potential of internationalization of all universities of medical sciences, encourage the development of international medical education standards and plan for the available capacity. In this regard, in the past decade, the number of applicants to study in Iranian universities of medical sciences has been increased and nowadays, international students are studying in 34 universities of medical sciences in Iran, including Zanjan University of Medical Sciences (ZUMS) (6, 7). Student exchange and admission of international students in universities not only affect the scientific field, but also exert a significant impact on cultural, economic, social and political areas, which ultimately put the country in a better position. For instance, facilitating technology transfer, acquiring new funding for higher education, attracting regional contributions, tax benefits and monetization are some of the economic benefits of attracting international students (8-10). Students often choose their academic destination based on the economic, social, cultural and political conditions of the target countries (11, 12). It showed that the first five main factors that are considered in finding the right destination country and university are the safety of the host country, the credibility of the target country, the quality of the curriculum, the financial ability of students and possible job opportunities. In fact, students would like to experience a high-quality international education such that it can ultimately lead to better employment status or even long-term migration (13).

Given the intense competition in the world to attract foreign students, it seems crucial to develop a coherent program to improve the quality of universities, change methods or create new strategies. In fact, considering the regional competition in the vision plan and compared to Asian countries such as Malaysia, Singapore, Turkey, and Saudi Arabia and other countries with advanced higher education systems, one-tenth percent share of international students in Iran is extremely low and not acceptable.

Therefore, Iran needs macro and operational planning in this area (8). According to the results of a survey of 261 participants (including faculty members, staff and students) on the feasibility study of the internationalization of comprehensive public universities in Tehran, the results revealed that the average feasibility of internationalization of universities is lower than the hypothetical average, which emphasizes the need for proper planning, providing of academic infrastructure and culture building at the macro level in society (14).

Regarding the low experience of Iran in the area of higher education internationalization, there is insufficient research on the status of foreign students residing in the country. Moreover, the studies conducted in this area have failed to comprehensively assess all aspects of the lives of foreign students in big student cities of Iran. Therefore, there is a need for more evaluation of this subject in the universities of Iran. With this background in mind, the present study aimed to identify and determine the components affecting the educational performance of international students in ZUMS. Our findings could be used to recognize the important components involved in the improvement of academic status and the quality of education provided to international students.

Materials and Methods

The present study was carried out using the conventional qualitative content analysis to explore the experience of participating students (15). First, data related to the experiences of students in terms of the factors affecting their education and level of satisfaction were collected in multiple face-to-face or online meetings with their academic advisor as well as one of Iranian student as mentor over a year. Afterwards, due to the Covid-19 pandemic online interviews were conducted for a more in-depth assessment of students' experience. The subjects included 19 foreign students studying in ZUMS (Table 1).

Table 1: Personal Characteristics of the interviewees

Nationality	Iraqi- Kurdistan	18
	Pakistani	1
	Iranian (Mentor)	1
Sexuality	Women	2
	Men	18
Age	≤25	2
	>25	18
Previous acquaintance with Persian language	Yes	4
	No	16
Previous history of living in Iran	Yes	2
	No	18
Previous history of travel to Iran	Yes	4
	No	16
Previous education in Iran	Yes	2
	No	18

Data collection was performed using in-depth, semi-structured interviews with the participants. Initially, the interviews were conducted in Kurdish in the form of videoconferencing with prior coordination and sufficient duration (15-20 minutes), at a suitable time for individuals and in the quiet environment of the students' home. Moreover, some of the students were interviewed for a second time in person after about one month, when the majority of interviewees referred to Iran to extend their student visas. The selection of participants was conducted by purposive sampling, and interviews continued until reaching data saturation. In the current research, the main question was: "what factors have influenced your educational status during your time at ZUMS?". There were also some secondary questions, such as: "what have you experienced during studying at this university since your arrival?", "What has affected your satisfaction during your education?", and "what challenges and problems did you face while studying?". The text of interviews was immediately recorded verbatim in Microsoft Word after each one, and the typed information was then compared with the recorded items. Data saturation was reached after 20 interviews, and data analysis was carried out using the conventional qualitative content analysis (15), such

that the entire text of the interview was considered as an analysis unit. Afterwards, coding was carried out, and the codes were summarized and classified, which led to the development of primary and secondary categories. Therefore, according to the counseling data in the last year, as well as face-to-face and online interviews, we extracted themes and sub-themes required for the optimization of the conditions of these students at ZUMS.

In order to express the accuracy of the participants' experiences, several methods were used to increase the rigor or trustworthiness of the study (16). Techniques used to increase the credibility of the results included the application of participant review (member checking), long-term involvement of the researcher with the research process (prolonged engagement), including conducting more than one interview with some participants, recurrent phone calls with the participants and the effective interaction of the research team with the participants for a more accurate interpretation of the data. Moreover, regarding the accuracy of the coding and interpretation process of the data, the text of the interviews, codes and themes were read and reviewed by the research team members and two supervisors to reach a final agreement. To ensure dependability and

increase confirmability, the researchers used the dependability audit and reflexive journal techniques. In order to increase the transferability of the results, accurate description of research and data analysis steps was considered by researchers while using the purposive sampling method to obtain rich information on the subject of this study.

In this study, attempts were made to adhere to ethical considerations by obtaining permission from participants to record interviews, ensuring the

subjects of the confidentiality terms regarding their personal information (anonymous interviews), ensuring the participants of deleting the interviewing after data analysis or at any their desired stage, and allowing the subjects to withdraw from the research at any time while being provided with the recorded files.

Results

In total, 90 open codes, 12 sub-themes and 4 themes were extracted from the texts of interviews (Table 2).

Table 2: Results of qualitative analysis of data related to the study of components affecting the educational status of international students from Iraqi Kurdistan

Themes	Sub themes
Occupational Concerns	Credits of the University Graduation Qualifications
Obstacles of Effective Learning	Educational Content Curriculum Planning Assessment and Evaluation Foreign Language Stress
Managing Students' Academic and Supportive Affairs	Organization of Administrative-Educational Affairs Support and E-Learning Infrastructures Organizational Culture of Internationalization social-welfare affairs of students
Academic Immigration Affairs	Consular Affairs Banking and Foreign Exchange Finance

1. Occupational Concerns

The issue of employment in the country of origin was one of the main concerns of foreign students. In this section, two sub-themes of university credit and degree were extracted.

1. Destination University Credibility:

The ranking of the destination university in the prestigious global ranking sites and the possibility of non-approval of the university in the country of origin were among the concerns of foreign students. In this regard, one of the participants marked: "if university has a good ranking in reputable sites so that no problem is caused after returning to the

country of origin". Another participant mentioned: "

some countries impose restrictions on the admission of the degree and demand that the ranking of the university from which we graduated must be within acceptable range" .

B) Graduate Certificates:

Since obtaining a work permit in the country of origin is subject to passing the relevant job test in English, higher familiarity with the English language, bilingual (Farsi and English) degree certificates and transcripts, and eliminating phrases such as "no validity for work permission in Iran" from the degree certificates were

pointed out by students. In this respect, one of the participants mentioned: "our degree must be bilingual, meaning that the English version of the degree must be existed in addition to the Farsi version. Moreover, it is better not to mention issues such as the document is not valid in Iran". Another subject affirmed: "we must take the exams in English in our own country, but in ZUMS, courses are presented in Farsi".

2. Obstacles of Effective Learning

In order to achieve learning objectives in any curriculum, special attention must be paid to educational strategies and assessment methods in addition to the underlying factors affecting the learning. In the present study, qualitative analysis results showed the effectiveness of educational content, curriculum planning, assessment and evaluation, and foreign language stress (Farsi) are the sub-themes of effective learning.

A) Educational Content:

Difficult content of courses, lack of provision of a summary of course in English, a high number of slides for each session, and inappropriate slides was pointed out by students regarding the educational content. A number of students proposed holding classes for foreign students separately so that international students would have the opportunity to attend courses presented with slower teaching speed and also less teaching volume for each session. In this regard, some of the students declared that "the biggest problem was to study courses alongside with Iranian students despite the significant differences between foreign and Iranian students in terms of familiarity with the language and educational level. It would be better to separate Iranian students from international ones". Another student mentioned: "taking the same exams from Iranian and foreign students is very difficult for us". Another interviewee marked: "sometimes there is a large number of slides and insufficient explanations about

them in each one, which causes problems for foreign students". In addition, one of students affirmed: "although English references were introduced, but handouts and curricula were in Farsi language".

B) Curriculum Planning:

To ensure learners' acquisition of professional competencies, it is extremely important to develop a semester comprehensive curriculum based on the approved curriculum of the country. In this regard, one of the subjects marked: "the curriculum was not determined in the first few days. We had no idea whether the academic course is held along with Farsi courses or not" "we had to be informed of the curriculum from the beginning." Another student mentioned: "I had problems with the Farsi learning course. It would have been better if the first semester was only dedicated to the Farsi learning."

C) Assessment and Evaluation Methods:

The assessment and evaluation process was another factor affecting the learning theme. Obviously, the assessment method and level of difficulty of questions must match the learning objectives of each course. Students must be fully informed of the test process in order to properly plan for the exam. In this regard, one of the students stated: "in the beginning, our problem was the insufficient time given for exams. It would be better to have more time" . "holding the same exam for foreign and Iranian students was difficult for us."

D) Foreign Language Stress (Farsi):

One of the most important themes affecting learning was the lack of fluency in Farsi. In this regard, sub-themes extracted were problems in understanding Farsi language upon arrival, inability to communicate with and make requests from faculty members and authorities in Farsi, difficulty in registering applications in Farsi and weakened Farsi language proficiency during the Covid-19 pandemic due to not being in the environment, and holding some assignments and class quizzes in Farsi. A number of students requested that classes be held in English

instead of Farsi, or that more English terms be used during teaching. One of the students mentioned: "some of English terms are expressed in Farsi, which is difficult for us". Another student expressed: "We had language problems and it would be better to receive bilingual education". In addition, a student stated: "our language problems started when we attended joint classes with Iranian students. Everything was stated in Farsi and our teachers did not explain things slowly."

3. Managing Students' Academic and Supportive Affairs

Underlying factors affecting students' learning have always been along with the important factors of students' education. According to our findings, organizing administrative-educational affairs, support and e-learning infrastructures, social-welfare affairs of students and the organizational culture of internationalization were effective sub-themes that affect the managing of students' academic and supportive affairs.

A) Organizing Administrative-Educational Affairs:

The issues mentioned in this area included timely credit selection and not being conditional on paying tuition, familiarizing students with course instruction rules at the beginning of the enrollment, facilitating the timely process of departure from the country, settlement or responding to students' needs, and eliminating problems related to the schedule of semesters at the beginning of Covid-19 pandemic. Sharing their experience, one of the subjects asserted: "we had problems in the taking courses. We also experienced a delay at the start of the semester due to tuition fee payment issues (tuition-dependent registration)" and the other one mentioned: "it would be better if all information related to the educational system and rules be provided at the beginning of semester". Course matching and credit transfer was also mentioned by some of the applicants at the beginning of the university. In this respect, one of the subjects expressed: "one of problem was lack of

course matching and credit transfer despite the fact that our curricula and degrees were provided to the destination university".

Regarding to the first experience of international student attraction in ZUMS, organizing affairs and coordination in different departments was associated with challenges at the beginning of students' arrival. In this regard, one of the students expressed: "our requests were not responded in a timely manner. For instance, there is a system problem today and we have an exam tomorrow and cannot wait for a few days". Another student mentioned: "we were not fully informed of the education regulations and instructions".

B) Support and E-learning Infrastructure

Due to the simultaneous outbreak of the Covid-19 virus along with the start of the specialized course of foreign students, which necessitated their return to their own country, students had experienced such as lack of proper support for the virtual education system with special university learning software (NAVID) (problem of entering the NAVID system, downloading videos and taking a class exam), problems regarding access to the exam system in the country of origin (problem regarding Internet platform, entry or loss of exam time due to technical problems of the system), and lack of access to electricity during most hours in their country. In this regard, one of the students marked: "once, I exited the system during the exam and was not able to re-enter" , and "we had numerous problems on NAVID System at the beginning of Covid-19 pandemic, because of which we fell behind for few weeks since the entry to the system was not possible outside Iran".

C) Social-Welfare Affairs of Students:

Accommodation, nutrition, health and medical issues, psychological counseling as well as the high cost of some services were among the important issues identified in this section. One of the students expressed: "there was no paging system in the dormitory to inform us of university transfer service or food arrival, which causes some of the students to

miss the service". "Foreign students cannot go back home during the holidays because of high travel costs. Considering we mostly reside in dormitories; it would be safe to know that there is always a room in a dormitory for a foreign student during the holidays or during summer". The other one stated "some of the meals offered by the university do not match foreign students' taste. For example, most of us do not like Olivier salad".

D) Organizational Culture of Internationalization:

The culture of an organization describes appropriate behavior within the organization. Familiarization with the culture and the ability to analyze cultural differences are among the skills that can improve our ability to manage conflicts. according to our findings, the behavior and interaction of Iranian students, staff and officials with international students in the form of a certain organizational culture in the university has effects on them. Students mentioned about their interaction with Iranian students, education staff, and professors. In this regard, one of the students marked: "Iranian students rarely interact with us and mostly keep their distance. The university is required to improve this situation" and "most teachers have good relationships with us, but few of them do not like us enough. We would like the university to talk with them about how to treat us especially for not mastering the Persian language".

4. Academic Immigration Affairs

Student immigration in Iran faces challenges, most of which is related to banking sanctions. In this respect, the students raised issues related to consular affairs (educational passport barriers) and banking and foreign exchange finance.

A) Consular Affairs (Educational Passport Barriers):

In this area, some of the experiences of students included time-consuming departure procedures, long periods between application and obtaining a residence permit, and insufficient familiarity with

these processes in Zanjan. In this respect, one of the participants stated: "it takes a long time to receive an exit stamp in the passport. Sometimes, it takes two weeks".

B) Banking and Foreign Exchange Finance:

The time-consuming Iranian credit card acquisition process, money transfer and exchange issues, and tuition payment in dollars were mentioned by students. In addition, lack of access to international bank systems due to economic sanctions against Iran has caused many problems regarding money transfers. In this regard, one of the subjects expressed: "we have problems regarding bringing and exchanging currency in Iran. It took me two weeks to solve my payment problem". Another subject expressed: "during the first few weeks, we kept our money in the dormitory because of not having a credit card here". In terms of tuition payment method, one of the participants asserted: "it would be better if it was possible to pay the tuition fee at the daily price of dollars in Tomans".

Discussion

Today, due to the importance and benefits of international communications in various aspects including cultural, economic, social and political areas there is close competition among universities of the world regarding attraction of foreign students. Given the growing global competition among countries and universities of the world, it is crucial to identify challenges and components affecting the education of foreign students so that appropriate conditions would be provided for these individuals and their satisfaction would be achieved. In the current research, we identified four themes affecting the education of students, including occupational concerns, obstacles of effective learning, managing students' academic and supportive affairs, and academic immigration affairs.

In general, issues related to the quality of education, the reputation of the destination university, and future

career were among the factors influencing the decisions related to international student selection around the world. In this regard, variables such as university ranking, university staff quality, different curricula, availability of internship opportunities, and level of access to jobs after graduates played a significant role in the student selection process (17). In the present study, occupational concerns mostly included destination university credibility and graduate certificates. Therefore, the students expressed concerns about the employment process in their country and passing the final English exam there. Most international students consider the reputation of the university as a major influential factor. In a study performed in Malaysia to evaluate factors that influence the international students' decisions to study in this country, first the reputation of the institution and then the quality of courses, cost of education, and the geographical location of the university were regarded as the most important criteria in this regard (18). In a similar study performed in China, factors like future career prospects, financial aid and employment rate and income in the host country showed to play a key role in the decision making and international academic mobility of students (19).

In the present research, another theme was "obstacles of effective learning", identified based on the experiences of foreign students. Lack of effective learning, which could be affected by various factors and variables, must be taken into account by foreign student attraction planners. In this study, educational content, curriculum planning, assessment and evaluation methods, and foreign language stress (Farsi) were extracted as sub-themes. Studies show that most foreign students face serious educational problems, social isolation and cultural adjustment due to a lack of sufficient ability during lectures, exams and interaction with other people (20). In the present study, Farsi language proficiency was a factor that affected students' social communications and learning. The closure of universities during the Covid-

19 pandemic, the absence of students in the academic environment and lack of face-to-face interaction with Iranian teachers and students and the need to continue their education in the form of virtual education caused a decrease in the level of Persian language proficiency of students. Therefore, students had problems in virtual education and related exams due to weakness in the Farsi language. This was more evident for students who took a semester off during the Covid-19 pandemic.

Another challenge for foreign students regarding poor language proficiency was their evaluation process. International students had problems passing their exams due to a lack of language proficiency (11). In this regard, other studies have reported obstacles to effective learning such as poor Farsi proficiency, educational content, curriculum and evaluation methods in universities of the country. In a qualitative study by Jamshidi-Moghadam et al. on the satisfaction of 14 international students at the Isfahan University of Medical Sciences, the educational problems of foreign students were mainly weakness in understanding Farsi language, differences in educational systems, inappropriate teaching methods and dissatisfaction with textbooks (11). According to the findings of Nakhoda et al., weaknesses in academic-educational processes of universities of medical sciences in Tehran, including inappropriate exam schedules, unsuitable semester schedules, poor counseling and notification processes were among the factors that caused foreign student dissatisfaction (21). In a study by Sorkhabi et al., people experiencing academic decline reported issues such as lack of proper Farsi language comprehension, lack of motivation, teacher inability to properly transfer the data, and difficult course contents as the most important causes of their academic decline (22). Managing students' academic and supportive affairs was another theme extracted from the results. Other studies have reported issues such as organizing administrative-educational affairs, e-learning infrastructures, social welfare affairs of students, and

the organizational culture of internationalization. According to the results of Nahkoda et al., deficiencies in the educational and management system, deficiencies in providing counseling and information, welfare problems and weakness in interpersonal interactions were among the factors of dissatisfaction of foreign students (21). In a study, Arab Kheradmand et al. assessed the level of satisfaction of students of Tehran University of Medical Sciences in various areas such as admission and registration process, teaching and learning, Farsi language teaching, library and information, IT equipment, sports technology equipment and accommodation equipment. According to their results, 70% of the students were satisfied, whereas 10% were dissatisfied with the services received (23).

In a study by Sorkhabi et al., the educational life status of foreign students of different public universities of Iran was evaluated for a period of 2013-2014. In terms of discrimination by teachers, 58.1% of students did not report discrimination while 30.1% of the students believed that teachers treated foreign students somewhat discriminately (22). In a qualitative study, O'Reilly et al. evaluated the challenges of foreign students in Ireland, and the participants reported a wide range of social, cultural and psychological problems, most of which were related to cultural differences and lack of interest in internationalization (24). Considering the sensitivity and vulnerability of foreign students, there is a definite need for improving the education and public culture in the country and especially in the university regarding to the internalization. According to the results, it is necessary to optimize the organizational culture of internationalization and increase the interaction of Iranian students, teachers and staff with foreign students. It seems that one of the strategies is to inform the international culture of international students and how to deal with them and to motivate Iranian teachers, staff and students for internationalization. In the present study, the existence of English websites with sufficient

information about the curricula of desired disciplines, as well as geographical and cultural data of Iran was regarded to be beneficial for foreign students before enrolling in the university. One of the new aspects of the present research was assessing the situation of international students during the Covid-19 pandemic and e-learning. Due to the new conditions in the whole world, studies in this area are emerging and limited. In general, the impact of e-learning on the world has faced serious challenges and concerns. In this regard, a question raised is whether this method especially effective when compared to face-to-face classes. In qualitative research, Mok et al. assessed the results of a survey from 1227 academic students of Hong Kong, and their results showed that most respondents were dissatisfied with the effectiveness of e-learning. Meanwhile, the income level of the family of respondents and their information technology literacy affected e-learning. They suggested that different methods of e-learning and face-to-face training should be combined with other forms of learning activities to enrich students' learning experience and improve their mentality (25). In our research, students faced challenges such as lack of familiarity with the used software programs, lack of proper Internet infrastructure in their country and insufficient support to solve system problems regarding e-learning. These challenges, along with poor Farsi language proficiency and lack of sufficient familiarity with the university environment led to course drop or withdrawal of some of the students. In a study, Adnan evaluated the attitude of BSc and MSc students in Pakistan toward remote learning during the Covid-19 pandemic. According to their results, e-learning could not do well in developing countries such as Pakistan, as the vast majority of students were unable to access the Internet due to technical and monetary issues. Factors such as lack of face-to-face interaction with the instructor, a large time gap between asking questions and receiving responses in the courses, and lack of traditional presence and association with people in the classroom were important issues raised by students (26).

Academic immigration affairs were other factors affecting the educational status of students in the current research. Visa issuance procedure, accommodation and entry and departure were among the challenges of foreign students in Iran. In a study, Khanal and Gaulee evaluated the challenges of international students in some of the high-ranking students regarding student acceptance rates for the period of 2000-2018 at various pre-departure, post-departure and post-graduation levels. According to their results, pre-departure challenges included receiving accurate information about target universities and countries, understanding the admission and registration procedures, and the method and preparation of documents for obtaining a visa. In addition, language, barriers and financial and cultural issues were reported as post-departure challenges of international students. Finally, an uncertain future and excessive bureaucratic procedures were the most important post-graduate challenges (27). It seems that issues such as facilitating the visa process and student departure are among the issues that need to be reviewed and optimized. Establishment of a portal to guide the admission of all non-Iranian students in a comprehensive manner in the General Directorate of Non-Iranian Students Affairs, a continuation of decentralization of consular and educational affairs and conceding the affairs to universities, as well as creation of an electronic platform for passport-related processes were the most important facilitators of foreign student acceptance. On the other hand, issues such as lack of access to the international banking system, which is a consequence of sanctions against Iran, have led to numerous challenges for international students, especially in terms of money transfer. During the Covid-19 pandemic, which necessitated the return of students to the origin country, lack of access to an international banking system caused difficulties regarding tuition payment for e-learning course registration. Problems with immigration and currency transfers were among the issues that need to be addressed.

Conclusion

In the present study, the most important factors affecting the education of international students were occupational concerns, obstacles of effective learning, managing students' academic and supportive affairs, and academic immigration affairs. The themes such as e-learning infrastructures and academic immigration affairs due to the Covid-19 pandemic and banking sanctions against Iran were new components obtained in the present study, the assessment of which is necessary due to lack of previous experience. Therefore, the themes extracted from our findings along with the results of other similar studies in other universities of Iran could be used to draw a comprehensive roadmap and a general mechanism to lay the proper foundation for internationalization of higher education in the country and improvement of education quality.

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Conflicts of Interest

There is no conflict of interest in the present study by the authors.

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