ORIGINAL ARTICLE

Designing Entrepreneurship Measurement Tool: Case Study, Mashhad University of Medical Sciences

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Background: Entrepreneurship has had a dispensable role in economic and social sectors, especially in the health system. One of the problems is the lack of standardized tools for measuring the entrepreneurship status in medical universities. The purpose of this study was to design an entrepreneurship measurement tool in Mashhad University of Medical Sciences.

Methods: This is a mixed qualitative -quantitative study in two phases of reviewing the literature and expert opinion survey using Delphi method. In the first step, the variables affecting organizational entrepreneurship were extracted by examining the related literature. Afterwards, the extracted variables were finalized by Delphi method after reaching the consensus of experts. Then, in the quantitative section, the final dimension questionnaire was prepared and structural equation method was used for data analysis.

Results: Six dimensions were identified for Entrepreneurship Questionnaire and 39 components of Entrepreneurship dimension were reported. The results showed that many factors affect entrepreneurship, including human factors, entrepreneurship culture, motivational factors, accelerating variables, information technologies, and rehabilitation variables.

Conclusions: The designed tool can help to identify the current status of entrepreneurship in medical science universities. Given the need for current organizations to benefit from the advantages of moving to entrepreneurial management, managers can go a long way toward continually improving the organization through special attention to the dimension affecting this management style identified in the present study, as well as providing resources and facilities needed to achieve these dimensions.

Keywords: Entrepreneurship; Health System; Medical University

أداة قياس تصميم ريادة الأعمال (دراسة حالة: جامعة مشهد للعلوم الطبية)

الخلفية: أصبحت ريادة الأعمال مهمة للغاية في العديد من القطاعات الاقتصادية والاجتماعية ، وخاصة النظام الصحي. تتمثل إحدى المشاكل في الافتقار إلى الأدوات الموحدة لقياس حالة ريادة الأعمال في الجامعات الطبية. كان الغرض من هذه الدراسة هو تصميم أداة قياس ريادة الأعمال في جامعة مشهد للعلوم الطبية.

الطرق: هذه دراسة مجمعة (نوعية - كمية) على مرحلتين من مراجعة الأدبيات واستطلاع رأي الخبراء باستخدام طريقة دلفي. في الخطوة الأولى تم استخراج المتغيرات التي تؤثر على ريادة الأعمال التنظيمية من خلال فحص الأدبيات ذات الصلة. بعد ذلك و بعد الوصول إلى إجماع الخبراء تم الانتهاء من المتغيرات المستخرجة بطريقة دلفي. ثم في القسم الكمي تم إعداد استبيان البعد النهائي واستخدمت طريقة المعادلة الهيكلية لتحليل البيانات.

النتائج: تم تحديد ستة أبعاد لاستبيان ريادة الأعمال وتم الإبلاغ عن ٣٩ مكونًا لبعد ريادة الأعمال. وأظهرت النتائج أن العديد من العوامل المؤثرة على ريادة الأعمال تشمل: العوامل البشرية، ثقافة ريادة الأعمال، العوامل التحفيزية، متغيرات التسريع، تقنيات المعلومات و اخيرا متغيرات إعادة التأهيل.

الخلاصة: يمكن أن تساعد الأداة المصممة في تحديد الوضع الحالي لريادة الأعمال في جامعة العلوم الطبية. نظرًا لحاجة المؤسسات الحالية إلى الاستفادة من فوائد التحرك نحو إدارة ريادة الأعمال ، فإن اهتمام المديرين للبعد الذي يؤثر على أسلوب الإدارة هذا المحدد في الدراسة الحالية و توفير الموارد و المرافق اللازمة لتحقيق هذه الأبعاد يمكن أن يقطع شوطًا طويلاً نحو استمرار تحسين المنظمة.

الكلمات المفتاحية: ريادة الأعمال ، جامعة العلوم الطبية ، النظام الصحي

روزگار کے مواقع ایجاد کرنے کا جائزہ لینے کے لئے سافٹ ویر کی تیاری ۔ مشہد یونیورسٹی آف میڈیکل سائنس کی ایک تحقیق

بیک گراوند: سماجی اور اقتصادی سطح پر روزگار کے مواقع فراہم کرنا نہایت اہمیت کا حامل ہے بالخصوص یہ ضرورت میڈیکل فیلڈ میں بھی دیکھی جاتی ہے۔ اس ضرورت کے پیش نظر یونیورسٹیوں کے پاس ایسا کوئي سافٹ ویر نہیں تھا جس سے وہ خود اپنے کیمپس میں روزگار کے مواقع فراہم کرنے کا ڈیٹا نہیں تھا لھذا اس تحقیق میں مشہد یونیورسٹی آف میڈیکل سائنسس میں ایسا سافٹ ویر بنانے کی کوشش کی گئي ہے جو اس یونیورسٹی میں روزگار کے مواقع فراہم کئے جانے کا ڈیٹا رکھ سکتا ہے ۔

روش: اس تحقیق میں ایک مرحلے میں متعلقہ متون کا جائزہ لیا گیا اور دوسرے مرحلے میں ڈلفی روش کے مطابق ماہرین سے ان کے نظریات معلوم کئے گئے۔ پہلے مرحلے میں متعلقہ متون سے آرگنائزیشن میں روزگار کے مواقع فراہم کرنے کے عوامل کو نکالا گیا اس کے بعد ان عوامل کو ماہرین کے سامنے پیش کیا گیا جن عوامل پر ماہرین نے اتفاق کیا انہیں سوالنامے کی کسوٹی پرتولا گیا اور آخر میں ساختاری ایکویشن کے ذریعے ڈیٹا کا تجزیہ کیا گیا ۔

نتیجے: اس تحقیق میں انتالیس عوامل ایسے سامنے آئے جن کو روزگار کے مواقع فراہم کرنے کے عمل پر موثر قرار دیا جاسکتا ہے ۔ البتہ دیگر بہت سے عوامل بھی ہیں جو اس راہ میں موثر ہیں جن میں انسانی عوامل ، روزگار کے مواقع فراہم کرنے کی ثقافت رائج کرنا، محرکات ، انفارمیشن ٹکنالوجی اور بازآبادکاری کے عوامل شامل ہیں۔

سفارش: جس سافٹ ویربنایا گیا ہے وہ میڈیکل یونیورسٹی میں روزگار کے مواقع فراہم کرنے کی صورتحال کو مینیج کرسکتا ہے۔ دیگر اداروں کو بھی اسی طرح کے سافٹ ویر کی ضرورت ہے لھذا ہائي لیول مینجمنٹ کو چاہیے کہ و مختلف میدانوں میں اس سافٹ ویر سے استفادہ کرنے کے لئے زمین ھموارکریں اوراس غرض سے بجٹ اور سہولتیں فراہم کریں۔

کلیدی الفاظ: روزگار کے مواقع ، بجٹ ، مینجمینٹ

طراحی ابزار سنجش کارآفرینی: مطالعه موردی دانشگاه علوم پزشکی مشهد

زمینه و هدف: کارآفرینی در بسیاری از بخش های اقتصادی و اجتماعی و به صورت ویژه نظام سلامت اهمیت زیادی پیدا کرده است. یکی از مشکلات موجود، نبود ابزار استاندارد برای سنجش وضع موجود کارآفرینی در دانشگاه های علوم پزشکی است. لذا مطالعه حاضر با هدف طراحی ابزار سنجش کارآفرینی در دانشگاه علوم پزشکی مشهد طراحی شده است.

روش: این مطالعه ترکیبی (کمی-کیفی) می باشد در دو مرحله بررسی متون و نظر سنجی از خبرگان به روش دلفی انجام شده است. در مرحله اول، با بررسی متون مرتبط، متغیرهای های موثر بر کارآفرینی سازمانی، استخراج شدند. سپس متغیرهای استخراج شده با استفاده از روش دلفی و پس از رسیدن به اجماع نظر خبرگان نهایی شدند. پس از این در بخش کمی پرسشنامه مرتبط با ابعاد نهایی تهیه و برای تحلیل داده ها از روش معادلات ساختاری استفاده شده است.

یافته ها: شش بعد برای پرسشنامه کارآفرینی شناسایی شده و ابعاد کارآفرینی تعداد ۳۹ مؤلفه گزارش شد. نتایج تحقیق نشان داد، عوامل زیادی بر کارآفرینی مؤثر هستند از جمله عوامل مؤثر بر کارآفرینی عبارتند از عوامل انسانی، فرهنگ کارآفرینی، عوامل انگیزشی، متغیرهای تسریع کننده، فناوری های اطلاعات و متغیرهای توانبخش.

نتیجه گیری: ابزار طراحی شده می تواند به شناخت وضعیت موجود کارآفرینی در دانشگاه علوم پزشکی کمک نماید. با توجه به نیاز سازمان های کنونی به بهره مندی از مزایای حاصل از حرکت به سمت مدیریت کارآفرینی، مدیران از طریق توجه ویژه به ابعاد مؤثر بر این سبک مدیریت که در مطالعه حاضر شناسایی شده اند، تأمین منابع، امکانات و تمهیدات لازم برای دست یابی به این ابعاد، می توانند در راستای بهبود مستمر سازمان قدم بردارند.

واژه های کلیدی: کارآفرینی، دانشگاه علوم پزشکی، نظام سلامت

INTRODUCTION

The need for entrepreneurship is nowadays recognized by many organizations, companies, and economic and social sectors. Government agencies are no exception, for example, medical sciences universities have faced a changing environment that needs to benefit from entrepreneurship in order to maintain or enhance the competitive advantages. In order to effectively perform the functions of government agencies in such environments, some market-based approaches such as privatization, public-private partners, outsourcing, and organizational entrepreneurship have been introduced. Contrary to the first three approaches, organizational entrepreneurship by improving the internal capacity of the organization can be one of the useful tools of government agencies to deal with environmental changes and also the best approach to solve these perceptions that have failed to deliver optimal governmental sector services. Entrepreneurship is a concept that has been explored from different perspectives so far; however, everyone believes that entrepreneurship is the economic driving engine in developed and developing countries. There are many definitions for organizational entrepreneurship. Organizational entrepreneurship can be defined as the process of creating and pursuing opportunity, regardless of the resources under control (1). In other words, organizational entrepreneurship is the process of discovering, evaluating, and exploiting opportunities to create a new product or service in the future (2).

The results of some studies, such as Khorramgah's research in 2012, which examined entrepreneurship and organizational agility among selected entrepreneurial firms in Tehran showed that among individual, environmental and organizational entrepreneurial factors, two individual and environmental factors had meaningful relationship with some components of organizational agility (3). Isley and Miller (2018) reported "The Economic Impact of Stanford University through Innovation and Entrepreneurship" on evaluating the economic impact of the university based on its involvement in entrepreneurship (4). In another study, Rasmus and Laguna (2018), in an article entitled " Successful Entrepreneurship Dimensions", evaluated the insights and dimensions of successful entrepreneurship from the perspectives of foreign shareholders (5). Jajda (2015) researched on "organizational entrepreneurship" as a prerequisite for managing high-performance organizations (6). In this paper, selected issues related to the impact of organizational entrepreneurship on organizational effectiveness have been presented. Also in internal research, Alimardani et al. (2009) investigated the relationship between organizational structure (more agile structure) and entrepreneurship at Shahid Beheshti University (7). The results indicated that there is a positive relationship between organizational structure and organizational entrepreneurship (4). In a study entitled "Research on Factors Affecting Organizational Innovation and Entrepreneurship in Iranian Medical Universities", Rajabi and Dehghan utilized a three-pronged model of entrepreneurship development and a structured questionnaire including 58 key questions based on Likert scale between the staff of the University of Medical Sciences (n = 379). The results showed that three categories of structural, behavioral, and contextual factors affect organizational innovation and entrepreneurship in medical science universities whose overall status is moderate (8). Barati et al. conducted a study called Designing the Organizational Structure of Entrepreneurship Centers at Iran University of Medical Sciences (9). This descriptive-comparative study aimed to design the organizational structure of entrepreneurship centers in medical universities of Iran, ten academic entrepreneurship centers in the Netherlands, Malaysia and the United States and 12 centers in affiliated universities of the Ministry of Science, Research and Technology in Iran. The data included a survey of entrepreneurship centers websites, questionnaires and interviews, and the results indicated the need to establish entrepreneurial centers in medical sciences with a flexible, dynamic, and scientific organizational structure tailored to their mission (10).

In the field of entrepreneurial health and its key concepts such as identifying entrepreneurial opportunities as an inevitable necessity to better and more fully respond to the needs of communities, this may be due to the nature of services and communication with individuals in the community. And in the Service sector, it includes services such as hospital services, public health, mental health and many more in Mashhad University of Medical Sciences as the health care center in the east of the country, not only in the east but in other parts of the country as well as neighboring countries. Like all other government agencies, the university has been affected by adverse economic conditions in recent years to the point that it is difficult to provide services based on the university's mission, so taking action to get out of the current situation on the one hand, as well as creating the right space in the long run, on the other hand, it is imperative to create a tool for vanguard. So in order to be able to go the right way, this study needed to identify the current situation and potentials, otherwise the present researchers would have trouble planning. To this end, simply having a roadmap does not mean success, and it requires serious determination and new approaches must be adopted. With a new approach to managing executive organs that the key is resilient economy, putting organizational entrepreneurship can greatly improve productivity, customer satisfaction, and the speed of accountability. On the other hand, given the nature of organizational entrepreneurship, this can provide the ground for the emergence of creativity and innovation that is essential to implementing a resilient economy in real terms. Therefore, due to the importance of entrepreneurship within the organization, it seems that understanding the current situation is important to plan for development. However, the lack of an appropriate tool for the research community makes it difficult to measure entrepreneurship, so designing appropriate tools is very important.

Also, since organizational entrepreneurship in universities has not been given enough attention so far, and there is always talk about distance between universities and the labor market, in this research we aimed to design the organizational

about distance between universities and the labor market, in this research we aimed to design the organizational entrepreneurship model to enhance the university's ability to cope with environmental changes and solve financial problems and restrictions and efficient use of resources.

METHODS

The present study is an applied two-sided study. Both quantitative and qualitative analyses were investigated simultaneously. The present study was conducted in two phases: review of literature and expert opinion survey by Delphi method. At first, the variables affecting organizational entrepreneurship were extracted by reviewing related literature. Then the extracted components were finalized by Delphi method following the consensus of experts. In order to obtain expert and specialists opinions, the first conceptual model was developed. Based on the existing experiences in this field and based on the review of previous studies in accordance with the content analysis technique, the most important factors, components, and indicators of the research background were identified and determined, as well as a basic conceptual model was proposed and presented in a questionnaire. Statistical population of the study consisted of 20 faculty members of Mashhad University of Medical Sciences, Mashhad Islamic Azad University, and Neyshabur Islamic Azad University. The selected experts were considered with experience and scientific backgrounds. Therefore, selected experts with appropriate scientific and experimental backgrounds were selected in this field. Of these, 14 were faculty members of Mashhad College of Health, Mashhad Islamic Azad University and Neyshabur Islamic Azad University and 6 senior managers in Mashhad University of Medical Sciences. The criterion for the interviewees to enter the study was sufficient familiarity with the concept of entrepreneurship and having an educational and research background in entrepreneurship.

The instrument for measuring data was a semi-structured questionnaire that its face validity was confirmed by academic experts. For Content Validity, Content Validity Ratio (CVR) was 0.78 and Content Validity Index (CVI) was 0.75, respectively, which confirmed the content validity of the questionnaire. The construct validity was confirmed by exploratory factor analysis. The reliability of the questionnaire was calculated and confirmed by Cronbach's alpha of 0.893.

For data analysis, the findings of the first Delphi round were analyzed and the findings of the second round were calculated for each component on a four-point Likert scale from 0 to 4 (Very agree: 4, Agree: 3, Average: 2, disagree: 1 and very disagree:.). Finally, the results were analyzed using descriptive statistics. The criterion for acceptance of each component in the model was its placement in the quartile 3 to 4 (75 to 100%). If the consensus was on a component between quarters 2 to 3 (50 to 75%), it was sent for re-polling in the next Delphi round. The components which rated of their collective agreement between quartile zero to 2 (0 to 50%) were removed from the model. At each stage of the Delphi method, the results of the previous step along with a questionnaire for that stage were sent to the experts.

In this research, the validity of the research tool (researcher-made questionnaire of entrepreneurial model) was evaluated as the content validity.

In order to construct a valid questionnaire, the present researchers tried to make a questionnaire which was a completed sample of the purpose and content of the subject.

How to measure CVR:

Content validity rate was calculated using the following equation:

$$CVR = \frac{n_E - \frac{N}{2}}{\frac{N}{2}}$$

Content validity index was calculated using the following equation:

$$CVI = \frac{n_3 + n_4}{N}$$

That is, the researchers summed up the number of professionals who had chosen Option 3 and 4 and placed them at the top. They then divided them by the total number of experts. If the CVI value is above 79%, the question is validated, but for example if the CVI value of the question is less than 79%, that question should be reviewed and raised in another form that is more transparent. As a result, due to the results of this step, inappropriate questions were removed or replaced by appropriate questions and a final questionnaire was designed.

RESULTS

The demographic characteristics of the interviewees at the Delphi stage are shown in table 1.

Table 1. Frequency distribution of interviewees' demographic variables

Percent	Number	Variable	
35%	7	Female	Gender
65%	13	Male	
20%	4	30-40 years	Age
55%	11	40-50 years	
25%	5	Over 50 years	

A total of 204 variables were extracted from the literature review as influencing factors on organizational entrepreneurship. The variables related to organizational entrepreneurship in the dimensions of innovation, human factors, entrepreneurship culture, motivational factors, accelerating variables of entrepreneurship, information technology, and organizational rehabilitation variables.

In the first stage, these variables were sent to the experts as a questionnaire and after summarizing the results of the experts' opinions, the variables affecting entrepreneurship were reduced to 87 variables after removing duplicates and by abundance (Table 2).

In the second Delphi stage, these variables were submitted to the experts as questionnaire for sorting. According to the sum of the opinions of the experts presented in the Delphi panel, finally the number of 6 dimensions and 33 components were extracted as the final factors and components.

Table 2. Abundance of dimensions and components affecting organizational entrepreneurship

dimension/ Component	Abundance	Dimensions of Entrepreneurship	Dimension / Component	Abundance	Dimensions of Entrepreneurship
Component	1	Fostering the business concept	dimension	5	Environment and relationship with environment
Component	1	Forming working teams	dimension	4	Innovation, process innovation and product innovation
dimension	1	Technology matching	Component	4	Perception, evaluation and creation and exploitation of opportunity
Component	1	effort and Perseverance	dimension	4	Risk and risk taking
Component	1	Success	dimension	4	Obtain the necessary resources and evaluate resources
Component	1	Globalization	dimension	3	Independence and relative independence
Component	1	Cultural support	dimension	1	Forward variables
Component	1	Creativity	dimension	3	Social economic conditions and exploitation of economic activities
Component	1	High growth	Component	2	Entrepreneurial culture
Component	1	Entrepreneur satisfaction	Component	1	Organizational acts
dimension	1	Competition	dimension	1	flexibility
Component	1	Government approaches and policies	Component	2	Motivation
Component	1	Entrepreneurial leadership	Component	1	Behavior
dimension	1	Human Capital	dimension	2	Organization
Component	1	Entrepreneurial Project Support Policy	dimension	2	Networking
Component	1	Determination	dimension	2	Entrepreneurial activities and characteristics
Component	1	Cognitive element	Component	2	Personality characteristics
Component	1	Competitive Strategy Factors	Component	2	Financing and financial support
dimension	1	Growth Factors	Component	1	Bonus status
dimension	1	Psychological factors	Component	2	Individual and individual attitudes
dimension	1	Personal factors	Component	1	innovation
Component	1	Sales agents	Component	1	Information and Electronic Entrepreneurship
dimension	1	Internal Capability Factors	Component	1	Credibility of the organization
dimension	1	Production Related Factors	Component	1	Believing in the sacred
Component	1	Process	Component	1	Doing work with others
Component	1	Professional social activity	dimension	1	Goals and Results
Component	1	Opportunity to invest in opportunities	Component	1	Creating value
Component	1	Executive Management	Component	1	Skills commissioning) startup(
dimension	1	Rehabilitation variables	Component	1	Job Skills and Entrepreneurship
			dimension	1	Accelerating variables

According to the final results of the second stage and considering the dimensions and components identified, for each component, the relevant questions were designed by experts. For each component, depending on the component, 2 items or more were designed. After being designed, the questionnaire was provided to assess the relevance and necessity of the questions. After answering the questionnaire, the responses were assessed by the CVI-CVR test.

DISCUSSION

One of the important patterns and strategies in the process of growth and development in advanced societies is the entrepreneurial process in organizations which has led to the economic development and progress of countries. Also its main source is the presence of creative and entrepreneurial individuals in organizations that can make a huge difference

in organizations with their valuable achievements. Although Iran has been able to grow in individual entrepreneurship in recent years, unfortunately in organizational entrepreneurship, which is considered as the most important lever of economics and development of organizations in the field of global competition, is in a poor condition (11). So the results of this research in one of the most important organizations, the University of Medical Sciences, can help the progress and development of this organization.

The results of this research, obtained from answering the research questions, are as follows:

Question 1: What are the dimensions of appropriate organizational entrepreneurship model in Mashhad University of Medical Sciences?

According to the results of the research, in response to question one, the dimensions of organizational entrepreneurship appropriate for Mashhad University of Medical Sciences included: human factors, entrepreneurship culture, motivational factors, accelerating variables, and variables of rehabilitation and information technology.

The results of Hosseini and keshavarz research titled "Identification and Ranking of Factors Affecting Organizational Entrepreneurship to Improve Company Performance Using Fuzzy Hierarchical Technique" are not similar in dimensions (12). They have divided the factors affecting organizational entrepreneurship that help improve firm performance into three categories: structural, contextual, and behavioral. They have also prioritized the importance of each of these factors by employing fuzzy hierarchical analysis techniques and by surveying the experts of top companies active in the industry, hence they concluded that the most important factors affecting organizational entrepreneurship in order to improve the organization's performance are as follows: Structural factors, contextual factors, and behavioral factors. Among the structural factors, the most important factors were: entrepreneurial organization structure, decision making and control, and reward system. On the other hand, political or government factors, infrastructure, communications, and access to resources were identified as the most important underlying factors. Finally, the most important behavioral factors were: organizational culture, management support, risk taking, manager's characteristics, and staff characteristics (12). This difference in results could be due to the organizational difference between the university and the active companies in industry.

An organization cannot be considered an entrepreneur when its employees and managers have failed to identify their abilities; however, nurturing individual creativity using the environmental understanding should be created. Hence, one of the factors affecting entrepreneurial behavior is human capital. Not only does human capital affect individuals 'ability to discover, evaluate, and exploit opportunities, they also influence individuals' intentions and behaviors.

The environment, cultural habits, and the way we interact with organizations shaping the culture, and the way we interact with entrepreneurship are dimensions of entrepreneurship. The way entrepreneurship is formed and promoted, requires specific methods and practices that are based on specific beliefs and values. The set of these methods and beliefs can be considered as a culture. In fact, the entrepreneurial process has certain culture within.

On the issue of entrepreneurship, one of the most important factors is what kind of motivational system exists for an entrepreneur to show his/her creativity. It should be noted that the development of entrepreneurship requires consideration of the motivations of those who decide to become entrepreneurs. Scott Sheen, a renowned entrepreneurial theorist, believed that entrepreneurship involves the human factor and that the entrepreneurial process occurs because people are trying to pursue opportunities, but humans, because of their differences, work on opportunities. The ability and the will are different. Due to the importance of selecting experts in the field of entrepreneurship and high occupation of these people, responses were usually delayed; however, after repeating researchers' follow-up, it resulted in time consuming data gathering process.

The next limitation in this field is the generalizability of this tool to other similar organizations.

The next is about data and questionnaire tools. The data at the model test stage relies on respondents' perceptions of productivity effects and related factors. Perceptual criteria cannot be an accurate reflection of reality, although this is common for social science research that emphasizes perceptual criteria. Perceptual criteria may give rise to issues such as validity problem, bias responses, and incorrect perceptions of the items. Because research has used the subjective judgments of organization managers. However, the use of third-level systems tools for the eighth level of systems (social systems) is a limitation. From the Bolding perspective, systems are divided from simple to complex into nine levels of magnitude, which are the third level of cybernetic systems and the eighth level of social systems.

The problem of generalizing the results is the next issue of research. Although the model has a general orientation, it may not apply to all organizations in the governmental and non-governmental sectors. To generalize the results of the study done at the University of Medical Sciences, it is not possible to describe or predict factors in other governmental and non-governmental sectors but the results can be used to analyze some parts of a research or similar study in other sections.

Although various research have been conducted on entrepreneurial or agile universities and their constituents and elements, however, rarely can be found to coherently design the Entrepreneurship Assessment Tool of the medical universities of the country. However, in the present study, it was done. This provides the foundation for a move to entrepreneurial university, and gives the current conditions of the country and enables better management of current crises.

The results of the research based on the previous models and the analysis of the present study have created a questionnaire tool that measures entrepreneurship status in university. The point is that this tool is designed based on existing entrepreneurial factors in the university and fully complies with its conditions.

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