

Entrepreneurship among Faculty Members in the Jordanian Universities and Its Relationship to Their Strength: A Graduate Students' Standpoint

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Abstract---The study aims to explore the relationship between the degree of availability of entrepreneurship among faculty members and its relationship to their strength from the standpoint of graduate students. Due to the nature of the study, the correlational descriptive approach is used. The questionnaire is used to collect data from the study sample of (270) male and female students, and their validity and reliability are also validated. The study shows that the degree of availability of entrepreneurship for a faculty member from the viewpoint of graduate students at the University of Jordan and the Middle East University ranks at a high level, and the strength of the faculty member is also high. It also shows that there is a positive correlation with statistical significance between the total degree of entrepreneurship and the degree of strength of the faculty member.

Keywords---Entrepreneurship, faculty members, the University of Jordan, Middle East University, faculty member, graduate students.

1 Introduction

In light of the accelerating life developments, educational institutions, especially universities, pay attention to youth groups and prepare them for a sound and balanced preparation to achieve positive participation in driving their societies to the highest levels of urbanization and advancement, pushing the wheel of development forward, and enhancing positive trends for the development of society. They also introduce the students to the sources of development and invest all their energies and leisure more effectively and beneficially.

The numerous university activities work to provide a large number of experiences and social, psychological, and aesthetic values that enrich the life of the individual and provide him with means and methods that help him to adapt to himself and his community according to his interests and goals. These activities also train them on the various businesses and crafts that they need in their lives, instill in them self-reliance, cooperation, work in a team spirit, the strength of observation, the accuracy of attention, the values of

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loyalty, honesty, courage, and patience, and develop social skills and positive directions towards himself and society as well.

Public and private universities and other educational institutions face many challenges and burdens in light of the tremendous development in technology, quality requirements, and academic accreditation, the increasing number of students and administrative, teaching, research, community and guidance burdens, and the intensification of competition among universities, which necessitates that these universities invest all their efforts and time in the service of the educational, research and societal process. It also requires university workers to adopt entrepreneurship to be able to excel in performance, be able to influence others, change the course of things, and interfere in decision-making processes (Mahmoud, 2011).

Nowadays, entrepreneurship tops the priorities of educational institutions and has gained great importance in many countries of the world due to the economic recession and high unemployment rates, and the fluctuations that global trade has not seen since the Second World War (Zidan, 2003).

As education is one of the most important axes for achieving economic development, entrepreneurship is the main motivation for innovation and economic growth. Entrepreneurship education plays a vital role in shaping and formulating goals, trends, and skills, as entrepreneurship is the catalyst that we need to provide novel and innovative models to achieve education goals (Bakatoshi and Ahmed, 2018; Volkmann, Karen, Mariotti, Rabuzzi, Vyakarnam, 2009).

Khader (2005) asserts that for the various faculty members to achieve their goals, whether they relate to their personal goals or the university's goals, they resort to attain different types of s whose forms vary and manifest, whether this organizational s are related to teaching and performance, or personals related to their characteristics and skills.

Faculty members are required to have within the educational institution or a hall that pre-prepares them for continuous learning, searching and inventing new opportunities, reviewing their work and evaluating their performance, analyzing their s and weaknesses, and identifying development opportunities, experiences and capabilities so that they have a place on the map of human civilization. The way to do this is by constantly reviewing its pedagogical and educational strategies to check on its capabilities in preparing generations for the 21st-century society with that, the faculty member can possess the s influencing his performance and these requirements are what characterizes entrepreneurship (Jibran, 2011).

Recent years have witnessed a growing interest in the field of entrepreneurship as a developmental method of performance, excellence and due to the results that help in achieving them, and the roles they exercise, as the matter of its awareness and use in performance has become a necessity. The awareness of workers in institutions of the importance of entrepreneurship in the performance and development of their business is extremely important due to various considerations, including that they are a source for developing new business and skills, reducing risks, and optimizing the use of resources and intellectual capital (Purcarea, 2011).

Besides, entrepreneurship provides human capital with the skills required to meet the need to advance the process of university education. It also provides the faculty member with the skill within the classroom, the ability to dialogue, debate, and influence, and create channels for sharing knowledge and learning, enabling students to share a collective group vision, and encourage them to group learning, ongoing motivation, generating new ideas and converting them into actionable, value-added goals and inputs (Tucker & Seluck, 2009).

Under the nature of their work and jobs and having strong knowledge structures, faculty members shall try to integrate knowledge, theories, experiences, perceptions and

organizational strategies into entrepreneurial work to develop their performance distinctly to maintain the efficiency, effectiveness, and viability of university knowledge (Osaimi, 2007).

Problem of the Study

Encouraging and promoting education for entrepreneurship have helped in attaining achievements by the Education for All campaign (EFA), which is among UNESCO's priorities in the field of education. Recently, there have been extensive talks concerning the concept of education for all, and what can be used to achieve education and training that contributes to preparing the new generations for the labor market. These new generations can be provided with the skills needed to make them active members of society (UNESCO, 2012).

Of note, any university success depends on the extent of the good elements of the faculty members available in the university. The faculty member is an effective and important element in universities because of the various roles that he plays in the success of the educational process, and the university's reputation and fame depend on him as well. Excellence and strength of the faculty member's performance mean excellence in the educational process, and it is the responsibility of the faculty member to produce future generations who are well-trained and productive actors in their societies, and consequently, he bears great burdens and challenges. To face these challenges, the faculty member is required to adopt the use of more effective methods of performance (Janabi, 2009).

The faculty member is one of the most important employees in universities, and his acquisition of entrepreneurship may contribute to the development of his performance and skill, possession of appropriate elements of the, and their employment in developing the university and educational outcomes. As said by Teven & Herring (2005), the perceived credibility of the faculty member directly affects student's satisfaction. Yet, in his 2006 study, Liao states that the faculty member's influence the behavior of participation, knowledge, and satisfaction with the distance learning environment of the undergraduate student. Importantly, Herman (1996) shows that the strength of faculty supervisors affects the learning outcomes of graduate students.

Several studies have indicated that the adoption of entrepreneurship helps in developing performance in all educational institutions, specifically universities. Momani's study (2016) recommends that private universities in Jordan adopt the pioneering characteristics of their workers because they reflect on the university's levels of performance, and thus reaching a future leading university level. In light of the aforesaid, the problem of the study lies in answering the main question, i.e. what is the degree of entrepreneurship availability among faculty members and its relationship to their strength from the viewpoint of graduate students at the University of Jordan and the Middle East University?

Questions of the Study

In light of the problem of statement, the questions of the study are as follows:

1. What is the degree of availability of entrepreneurship among faculty members in the Jordanian universities from the viewpoint of graduate students?
2. What is the degree of strength of the faculty member at the University of Jordan and the Middle East University from the viewpoint of graduate students?
3. Is there a statistically significant correlation between the means of the response of graduate students to the degree of availability of entrepreneurship and the strength of a faculty member at the University of Jordan and the Middle East University?

Objectives of the Study

The following objectives are articulated to answer the questions of the study.

1. Explore the degree of availability of entrepreneurship among faculty members in the Jordanian universities from the viewpoint of the graduate students.
2. Examine the degree of strength of the faculty member in the Jordanian universities from the viewpoint of graduate students.
3. Decide if there is a statistically significant correlation between the means of the response of graduate students to the degree of availability of entrepreneurship among faculty members and their strength in the Jordanian universities.

Significance of the Study

The significance of the study lies in two ways:

Theoretical Significance: the theoretical significance of the study lies mainly in its attempt to get acquainted with the concept of entrepreneurship and its importance in universities, among its staff, especially member of the teaching staff, in the quality of educational outcomes, particularly in private universities, and its clear role in educational institutions as it is in economic organizations. It is also seen in the scarcity of research, especially Arab studies dealing with the variables of entrepreneurship and the strength of the faculty member, as this research is one of the first researches that links between entrepreneurship and the strength of the faculty member. Besides, its significance is seen in providing educational literature on entrepreneurship, the strength of faculty members, and on the types of s and their manifestations in the faculty member, that decision-makers can use in analyzing the quality of the educational process. Importantly, this study can be a nucleus for future research and other studies in private universities, including the relevant previous theoretical literature and studies.

Practical Significance: the practical significance of the study lies in its attempt to reveal the reality of entrepreneurship at the University of Jordan and the Middle East University. The results of the study may help officials at the Ministry of Higher Education to apply this concept because of its clear implications for the success of the educational process. Practically speaking, this study is significant as it uncovers the level of the faculty members ' from the viewpoint of graduate students, as they are the most valuable element in the evaluation of a faculty member, being the recipient of knowledge and most influenced by the of the faculty member.

Previous Studies

Several studies have been done on the concept of entrepreneurship and its importance in several aspects of life. In their study, Kirby and Ibrahim (2011) aim to identify the impact of education programs for entrepreneurship on the British University students in Egypt as a comparative survey study on an experimental sample of a bachelor's students in the departments of Business Administration and Computer Science in the last school year. The members of the experimental sample, who have studied business entrepreneurship courses, are compared with the control sample from the students of Economics and Political Sciences. The results of the study show that universities play an important role in encouraging entrepreneurship among university students, and the Business Administration and Computer students have expressed their desire to establish their projects after graduation. In another study, Hill (2011) aims to identify the impact of education for entrepreneurship on the graduates' attitudes in the MBA program towards the initiative to launch commercial projects by examining a random sample of graduates from Irish

universities and institutes for the period (1992-2004), who have studied one or more courses in entrepreneurship during their studies in the program. The results indicate that there is no significant relationship between entrepreneurial education and the entrepreneurial behavior of graduates after passing educational experience in the MBA program.

However, Boyles (2012) conducts a study identifying some of the capabilities, skills, and knowledge associated with entrepreneurship among undergraduates to meet the challenges of the 20th century. The study uses the analytical descriptive method of the literature related to the subject of the study. The study shows that the most important skills and knowledge associated with entrepreneurship are basic, scientific, and technological literacy, reading and writing knowledge, information and communication management, creativity and innovation skills, curiosity and desire for adventure, logic, thinking, flexibility and adaptability, initiative, self-direction, productivity and accountability, leadership and responsibility, cooperation and teamwork, global awareness, and social and cultural skills. In their 2012 study, Dabic, Daim, Bayraktaroglu, Novak & Basie aim to uncover sexual differences among students in their attitudes toward entrepreneurship and the educational needs of entrepreneurship. They use the descriptive approach and apply a questionnaire to a sample of (3420) male and female students from the universities of more than ten countries. The study shows that there are differences between male and female students for the benefit of male students in entrepreneurial education, while female students are less willing to start their lives in private institutions. It also shows that there are significant gender differences in feasibility even though females feel supported by their families, less self-confident, and worried about entrepreneurship.

Moreover, Abdel Qader and Ibrahim (2015) conduct a study to identify, assess and develop entrepreneurship in Sudanese business administration colleges by applying the concept to the College of Business at the Nile University, and study existing models in business administration education and their relationship to developing entrepreneurship among students, and how to present the entrepreneurship course in a way that can achieve a valuable addition for the community. They use an analytical descriptive approach, a case study approach, and a questionnaire. The study shows that the course is developed in a way that suits the requirements of acquiring project preparation skills to provide information on how ideas are transformed into a practical reality.

Hamali and Arabi (2016) conduct a study to identify the reality of entrepreneurship culture at the University of Hail and the mechanisms to activate it from the viewpoint of faculty members, alongside the role of the university in the field of spreading the culture of entrepreneurship and the extent of awareness of faculty members of its importance. The study shows that spreading the culture of entrepreneurship needs to set specific policies, goals, and implementation plans, activate the university's entrepreneurship unit and develop awareness among both university administration, faculty, and students of the importance of the transition towards entrepreneurship projects. In another study, Khaled, Melegi, and Abdullah (2017) reveal the reality of entrepreneurship culture and the most important problems faced by the University of Hail from the viewpoint of members of the faculty and students to determine the proposed strategic parameters and foundations to activate the role of the University of Hail in establishing the culture of entrepreneurship among university youth. They use the descriptive approach and a related questionnaire. The study shows that the reality of entrepreneurship ranks medium and that the most important areas of the proposed strategy are entrepreneurial culture, administrative support, financing, and entrepreneurial learning, and training programs. It also shows that there are statistically significant differences attributable to the gender variable in favor of males, with no differences between the responses of faculty and students.

Erchul *et al.* (2001), conducts a study to identify psychologists' perceptions of the availability of social in consultant university members. The Interpersonal Relationship Scale among individuals (the image of a consultant university members) is applied to a sample (101) individuals from the Association of Schools of Psychology in the South East in the United States of America. It indicates that psychological counselors possess soft strength more than hard strength and that the strength that governs the relations between specialists and university teachers is summarized in fours as follows: authority (the legitimacy of justice, official authority, personal oppression), impersonal reward (the impersonal reward, the impersonal oppression), the personal strength (the personal reward, the admiration, the dependence legitimacy, the reciprocal legality), and the credibility (the expert, the direct information). The study also shows that the strength of the official authority falls under the soft strength of (0.39) more than the hard strength of (0.35), contrary to the findings of the Interpersonal Relationship Scale. In a 2004 study by Erchul, Raven, and Wilson, they identify the sources and strategies of strength used by psychological counselors (male and female) when consulting a university teacher by applying the Interpersonal Relationship Scale applied to a sample consisting of (134) of psychologists in the National Certificate Schools from (41) states. The results indicate that female specialists tend to use soft and hard strength more effectively than males due to gender differences in methods of communication and leadership.

Also, Teven and Herring (2005) conduct a study to examine the effect of perceived university teacher strength and credibility on student satisfaction. They apply the study to a sample of (67) university students at Southwestern University and use the scale of the perceived strength of the university member for Mc Croskey & Richmond of 1984. The results reveal that there is a positive relationship between the expert, admiration and reward strengths of the university members on the one hand, and the competence of the university member, care, merit and trust with the university member on the other hand, as well as the positive satisfaction of students with admiration and expert.

Steven (2005) conducts a study to identify the strength that students hope to be used by a faculty member according to the social strength model. The study uses the descriptive approach by applying the Raven *et al.* (1998) measure of social strength and demographic scale to a sample of (91) students. The study shows that students feel that soft strength such as the strength of information, expert, legitimate reliability, personality, reward, and admiration is much more appropriate than hard strength (impersonal reward, impersonal coercion, personal coercion, official position, and formal justice and legitimate reciprocity) and that the strengths of information and expert are most suitable for use by the university member.

In his 2006 study, Liao identifies the influence of a university member on the behavior of sharing knowledge and satisfaction with the distance learning environment. He uses a 1998 interaction scale developed by Sherry and a 2004 measure of satisfaction with learning developed by Bhattacharjee and Premkuma, along with developing a university member's strength scale. The study is applied to (103) distance learning students. The results show that student satisfaction has a direct relationship with knowledge sharing behavior, and that reward strength has a direct impact on interactivity and knowledge sharing behavior, while the rest of the official strengths and punishment have a weak relationship with them.

Schrodt *et al.* (2007), conducts a study to prepare the university member's strength scale in the hall. To prepare this, three studies are made to arrive at the final image of the scale through which: (a) a review of the characteristics of the Roach scale, (b) Roach scale reliability test through different samples, (c) Developing an alternative scale to measure observable behaviors to demonstrate the strength of the university member within the university class. The results of the first and second studies show that there shall be a support to the Roach scale and the assumptions for each dimension, considering it a weak

and inappropriate model when suggested as a model to represent the latent strength of teachers. The result of the third study shows that there is a new measure of the strength of the university member called the measure of using the strength of the teacher, and it consists of five dimensions of the strengths inside the class: oppression, reward, admiration, official strength, and the expert strength.

Likewise, in Steven's 2007 study, the aim is to measure university students' attitudes toward compliance with their professors after their teachers perceived an attempt to influence them through the use of social strength. The study uses the descriptive approach by applying Raven's 1998 scale to social strength applied to a sample of (326) students inside the United States of America. The study shows that there are differences in the description of students according to the type of residence and the type of school and that the strength dynamics between students and professors differ from that between the president and the subordinate, which is more traditional, and unlike the type of teacher, the type of residence affects the perception of the type of strength.

Also, in the 2010 study of Kantek & Gezer, they identify the strong dynamics of faculty members with students by studying students' expectations and perceptions. The study uses the descriptive approach through a questionnaire applied to a sample of (122) students from the School of Health Sciences in Turkey. The study shows that forced strength is the most used from the students' point of view, while the less used strength is the strength of the reward. As for the students, they expect to use expert strength. The study also shows that there is a positive correlation between the official strength and reward strength, the strength of admiration, and the strength of the expert. Also, it shows that forced strength is only positively related to formal strength and that the faculty members need to review the foundations and pillars of their strength. Additionally, Abdel Alim and Abdel Razzaq (2013) conduct a study to identify the degree of Taif University's practice of the learning organization's domains and its relationship to the strength of the faculty member. To achieve those goals, a correlational descriptive approach is used, and two questionnaires are developed as follows: a questionnaire of the dimensions of the educated organization, and the second is a questionnaire of the strength of the faculty member in the university class. The sample of the study consists of (452) faculty members randomly selected from the study community. The study shows that the expert's strength field ranks first with arithmetic mean (2.20), followed by the field of reward and reinforcement strength, the field of legal (official) strength, then the field of impressive strength, and then the field of forced strength in the fifth and last rank with an arithmetic mean of (1.86). The study also shows there is a positive correlation between the different dimensions of the learning organization and the strength of the faculty member in its various dimensions at the level of (0.01).

In light of the current review of previous studies, it is clear that previous studies aimed at verifying the readiness and attitudes of university students for entrepreneurship, the 2008 study of Kasasaba study (2008) aims to examine the readiness of entrepreneurship among students. As for Nasser and Omari's 2011 study, it aims to measure the characteristics of entrepreneurship for graduate students in Business Administration, while Boyles's study (2012) aims to identify some of the capabilities, skills, and knowledge associated with entrepreneurship among university students, while the study of (Dabic, Daim, Bayraktaroglu, Novak & Basie, 2012) aims to uncover sexual differences between male and female students in their directions towards entrepreneurship. Besides, Ramadan's study (2012) aims to get acquainted with the effect of the attitudes of students of Damascus University and some private universities on entrepreneurship. With that, it is seen that none of the previous studies have dealt with entrepreneurship among faculty members at the university, and thus the current study differs from previous studies, alongside the fact that the Arab studies and research have ignored the concept of entrepreneurship among the faculty members.

Concerning studies related to the strength of the faculty member, it becomes clear that there is no Arab study addressing the strength of the faculty member. However, foreign studies have addressed the strength of the faculty member. Erchul et al., (2001) aim to identify psychologists' perceptions of the availability of social strength among the consultant university teachers. Also, in their 2004 study, Erchul, Raven, & Wilson aim to identify the sources and strategies of strength used by male and female psychological counselors when consulting a university teacher.

As for the 2005 study of Teven & Herring, it examines the effect of the perceived university teacher's strength and credibility on student satisfaction. Also, Steven (2005) aims to identify the strength students hope to be used by a faculty member according to the social strength model. Besides, in his 2006 study, Liao identifies the impact of university member's strength on the behavior of sharing knowledge and satisfaction with the distance learning environment. Additionally, Schrodtt et al., (2007) develop a measure of university member's strength in the university class, while Steven's study (2007) measures the attitudes of university students towards compliance with their professors after attempting to influence them through the use of social strength. In another study conducted by Kantek and Gezer (2010), they identify the strong dynamics of faculty members with students.

Against this, the current study has made good use of the previous studies by selecting a variable for the strength of the faculty member from the student's point of view and thus making it the first in Arab study that addresses entrepreneurship and its relationship to the strength of the faculty member. Also, what distinguishes this study from previous studies is selecting the sample, which is graduate students at the University of Jordan and the Middle East University, along with the use of the descriptive correlational approach through exploring the relationship between entrepreneurship and the strength of a faculty member from the viewpoint of graduate students at the University of Jordan and the Middle East University.

Terms of the Study

Several key terms are articulated in this study as follows:

Entrepreneurship

Daft (2010) defines entrepreneurship as a set of activities related to starting a business, planning it, organizing it, taking risks, and being creative in its management. It is procedurally defined as the degree obtained by the faculty member through the response of graduate students to the entrepreneurial instrument consisting of (25) items distributed in five areas: (strategy, entrepreneurship education, university support, external relations, and entrepreneurship evaluation).

Faculty member strength

Hale (2001) defines faculty member strength as relationships between two or more people, so that one's behavior is influenced by the other, when (A) has strength and affects (B) to the extent that (A) can make (B) do anything because of that influence from (a). As for Gubaron (2004), it is defined as the ability possessed by the individual and by which he can change the behavior and attitudes of others to the purpose that pleases him. Also, Schriesheim & Neider (2006) define it as a change in one's beliefs, attitudes, and behavior as a result of being influenced by another individual. It is procedurally defined as the degree obtained by the faculty member through the response of graduate students at the University of Jordan and the Middle East University to the faculty member's strength instrument consisting of (25) items distributed in five areas: (forced strength, reward and reinforcement strength, admiration strength, legal strength, and expert strength)

Limitations of the Study

This study is limited to explore entrepreneurship and its relationship to the strength of a faculty member from the viewpoint of graduate students at the University of Jordan and the Middle East University. It is also limited to Master's program students at the Faculty of Educational Sciences. Besides, it is limited to the University of Jordan and the Middle East University. Moreover, it is applied in the 2nd semester of the academic year 2018/2019.

2 Method

To achieve the research objectives, a descriptive correlational approach is used.

Study population

The study population consists of all graduate students of the Faculty of Educational Sciences the University of Jordan and the Middle East University in the Master's program in the academic year 2018/2019 whose number is (915) male and female students, and Table (1) shows the distribution of the study population according to the university variable.

Table 1
Distribution of the Study Population According to the University Variable.

Variable	Categories	Number	Percentage %
University	University of Jordan	738	80.66%
	Middle East University	177	19.34%
	Total	915	100%

Study Sample: The study sample consists of (270) male and female students in the Master's program at the University of Jordan and the Middle East University selected by a simple random method, and Table (2) shows the distribution of the study sample members according to its variables.

Table 2
Shows the Distribution of the Study Sample Members

Variable	Categories	Frequencies	Percentage %
University	University of Jordan	240	88.89
	Middle East University	30	11.11

Study instruments

Based on the review of the pertinent theoretical literature and the instruments of previous studies addressing entrepreneurship such as the Boyles's study (2012) and Kasasaba's study (2008) and the strength of the faculty member such as Kantek and Gezer's study (2010) and Steven's study (2007), and to achieve the objectives of the study, the study instruments are developed to collect the necessary data, which is entrepreneurship and the strength of the faculty member in two parts:

The first part is to measure the degree of entrepreneurship for a faculty member, and the questionnaire consists of (25) items distributed on five main dimensions related to the subject of the study, as follows:

First: vision, message, and strategy that consist of (5) items.
 Second: leadership and governance that consist of (5) items.
 Third: education for entrepreneurship that consists of (5) items.
 Fourth: support that consists of (5) items.
 Fifth: Entrepreneurship Calendar consists of (5) items.

The second part is to measure the strength of the faculty member, and the questionnaire consists of (25) items distributed on five main dimensions related to the subject of the study, as follows:

First: forced strength that consists of (5) items.
 Second: reward and reinforcement strength that consist of (5) items.
 Third: admiration strength that consists of (5) items.
 Fourth: legal strength that consists of (5) items.
 Fifth: expert strength that consists of (5) items.

Each item of the two questionnaires is given a graded weight according to the Likert triple scale and the choices for the answers are: high, medium, and low. The choice (high) is given three degrees, the choice (medium) is given two degrees, and the choice (low) is given one degree.

Study Instruments' Validity

The instrument is presented in its initial form to (10) validators from professors specialized in educational administration and scientific research in Jordanian universities. They are asked to express their views on the degree of structural clarity of the items of the instrument, and the degree of validity of each item in measuring what is set to measure, the degree of relationship of each item to the area that belongs to it, and the degree of accuracy and coherence of the linguistic formulation. They are also asked to make any modifications to the linguistic formulation of the instrument's items, merging them or deleting some of them or adding to them, and in light of the modifications and their comments, the modifications and corrections are made in the linguistic formulation of some items.

Study Instruments' Reliability

To verify the reliability of the study instruments, the reliability coefficients are calculated for the degree of entrepreneurship by using the Cronbach's Alpha Formula to calculate the internal consistency, as the values of the reliability coefficients for the entrepreneurial axes have ranged between (0.94-0.90). However, the values of the reliability coefficients for the faculty member's strengths axes have ranged between (0.93-0.84) which are considered high, and Table (3) shows the values of the Cronbach's Alpha coefficient for the domains.

Table 3
The Reliability Coefficient of the Questionnaire on Entrepreneurship and its Relationship to the Strength of the Faculty Member

	Domain No	Domain	No of Items	Cronbach's Alpha Coefficient	Reliability Coefficients
Entrepreneurship	1	Vision, message, and strategy	5	0.94	.920
	2	Leadership and governance	5	0.93	.910
	3	Education for	5	0.92	.900

		entrepreneurship			
	4	Support	5	0.91	.910
	5	Entrepreneurship Calendar	5	0.90	.890
		Total			.900
Strength of the	1	Forced strength	5	0.90	.880
Faculty Member	2	Reward and reinforcement	5	0.84	.830
		strength			
	3	Admiration strength	5	0.85	.820
	4	Legal strength	5	0.89	.860
	5	Expert strength	5	0.93	.900
		Total			.880

Study Variables

The study includes the following variables:

The independent variable: Entrepreneurship for a faculty member

Dependent variable: the strength of a faculty member.

Statistical Processing

To answer the questions of the current study, the following statistical methods are used:

- * To answer the first and second questions, arithmetic means, standard deviations, ranks, and degrees are calculated.
- * To answer the third question, the Pearson correlation coefficient is used to reveal the relationship between entrepreneurship and the strength of a faculty member from the viewpoint of graduate students in the Faculties of Educational Sciences of the aforesaid universities.

Study Instruments' Correction

A three-degree measure for agreement is used in descending order as follows: (high, medium, and low) to measure the degree of availability of entrepreneurship and the strength of the faculty member from the viewpoint of graduate students. The judging criterion for the means of the study's instrument is also determined as follows:

Category length = (Number of levels) / (upper limit-lower limit (gradation)) = $2/3 = 0.66$

Accordingly, the judging criterion for the degree of availability of the results of the quantitative study according to the following criterion is as follows:

Low degree of performance: 1 - 1.66.

Medium degree of performance: 1.67 - 2.33.

A high degree of performance: 2.34 - 3.

3 Discussion

Results of the first question, which states "What is the degree of availability of entrepreneurship among faculty members in the Jordanian universities from the viewpoint of graduate students?"

To answer the question, arithmetic means, standard deviations, degrees, and ranks for graduate students' estimates of the degree of availability of entrepreneurship for the faculty member are calculated, and Table (4) shows the results:

Table 4
Arithmetic Means and Standard Deviations for Graduate Students' Estimates on the Degree of Entrepreneurship for a Faculty Member on the Axes of Study in Descending Order

No	Dimensions	AM	SD	Rank	Degree
1	Vision, message, and strategy	2.83	0.55	1	High
4	Support	2.80	0.78	2	High
2	Leadership and governance	2.58	0.82	3	High
5	Entrepreneurship Calendar	2.50	0.87	4	High
3	Education for entrepreneurship	1.68	0.99	5	Medium
	Total Degree	2.47	0.75		High

In light of the results of Table (4), it is clear that the degree of availability of entrepreneurship among the faculty members from the viewpoint of graduate students at the University of Jordan and the Middle East University has ranked high with an arithmetic mean of (2.47) and a standard deviation of (0.75). The results have also indicated that the dimension of the vision, message, and strategy has ranked first with an arithmetic mean of (2.83) and a standard deviation of (0.55) with a high degree, followed by support in the second rank with an arithmetic mean of (2.80) and a standard deviation of (0.78) and with a high degree, followed by leadership and governance in the third rank with an arithmetic mean of (2.58) and a standard deviation of (0.82) and with a high degree. Then, the dimension of the entrepreneurship calendar has ranked fourth with an arithmetic mean of (2.50) and a standard deviation of (0.87) with a high degree, whereas the dimension of the education for entrepreneurship has ranked last with an arithmetic mean of (1.68) and a standard deviation of (0.99) and a medium degree. The aforesaid results are caused by several reasons such as adopting the idea of entrepreneurship by university members, the independence of a university member for student entrepreneurship development, facilitating access to sources of knowledge for students, and evaluating the performance of student projects continuously. The results of this study differ from the studies of Khaled, Melegi, and Abdullah (2017) and the study of Qahtani and Mikhlaifi (2019).

Results of the second question, which states “What is the degree of strength of the faculty member at the University of Jordan and the Middle East University from the viewpoint of graduate students?”

To answer the question, arithmetic means, standard deviations, degrees, and ranks for the estimates of graduate students are calculated, and Table (5) shows the results:

Table 5
 Arithmetic Means and Standard Deviations for Graduate Students' Estimates on the Dimensions of the Faculty Member's Strength in Descending Order

No	Items	AM	SD	Rank	Degree
4	Legal strength	2.84	0.35	1	High
5	Expert strength	2.68	0.50	2	High
2	Reward and reinforcement strength	2.38	0.67	3	High
1	Forced strength	2.37	0.63	4	High
3	Admiration strength	2.19	0.68	5	Medium
	Total Degree	2.49	0.56		High

In light of the results of Table (5), it is clear that the degree of strength of the faculty member from the viewpoint of graduate at the University of Jordan and the Middle East University is of a high degree with an arithmetic mean of (2.49) and a standard deviation of (0.56). The results have also indicated that the dimension of the legal strength has ranked first with an arithmetic mean of (2.84) and a standard deviation of (0.35) and with a high degree, followed by the expert strength in the second rank with an arithmetic mean of (2.68) and a standard deviation of (0.50) and with a high degree, followed by the dimension of the reward and reinforcement strength in the third rank with an arithmetic mean of (2.38) and a standard deviation of (0.67) and with a high degree. Then, it is followed by the forced strength in the fourth rank with an arithmetic mean of (2.37) and a standard deviation of (0.63) and with a high degree, whereas the dimension of the admiration strength has ranked last with an arithmetic mean of (2.19) and a standard deviation of (0.68) and with a medium degree. The aforesaid results are caused by several reasons such as the appreciation and interest of the faculty member for the students, the faculty member's continuous relationship with the students in an open, frank and friendly manner, and the ability of the faculty member to organize and implement lectures well.

Results of the third question, which states "Is there a statistically significant correlation between the means of the response of graduate students to the degree of availability of entrepreneurship and the strength of a faculty member at the University of Jordan and the Middle East University?"

To answer the question, Pearson correlation coefficient is calculated between the degree of entrepreneurship and the strength of the faculty member from the viewpoint of graduate students at the University of Jordan and the Middle East University, and Table (6) shows the results:

Table 6
Values of Pearson Correlation Coefficients for the Relationship Between Entrepreneurship and the Strength of a Faculty Member from the Viewpoint of Students of Graduate Studies at the University of Jordan and the Middle East University

Dependent Variable Independent Variable	Strength of a Faculty Member
Entrepreneurship	**0.66

**statistically significant at the significance level ($\alpha = 0.01$)

Table (6) shows that there is a positive relationship with statistical significance at the level of significance ($\alpha = 0.05$) between the estimates of graduate students on entrepreneurship and the strength of the faculty member from the viewpoint of graduate students at the University of Jordan and the Middle East University, as the Pearson correlation coefficient (** 0.66). The aforesaid results are because universities are pioneers in offering specialization and aim to attain a systematic process of learning and teaching and work on attracting well-reputed faculty members with academic ranks. Another key reason is that the majors of Faculties of Educational Sciences are mostly graduate studies.

Recommendations

In light of the aforesaid results of the study, the following has been recommended:

- * Universities shall provide training courses for faculty members to practice entrepreneurship in their teaching performance.

- * Universities shall maintain increased entrepreneurship by supporting the efforts of the faculty members and students who reinforce the entrepreneurial spirit, gradually integrating entrepreneurship education into school curricula, constantly assessing a faculty member's performance in supporting student projects and their constraints, and using faculty members as an instrument to support entrepreneurship for students.
- * Universities shall provide the faculty member with special appreciation, respect, and attention among students for being honest, frank, and reliable in interacting with them and for his role in discussing modern theories and research in his lectures.
- * Universities shall conduct a comparative study on entrepreneurship with business incubators, linking the internal environment and its relationship to the strength of the faculty member.

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