A strategic Vision to Develop Research Performance Based on the Transition to a Research University

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Abstract:

This study aimed at suggesting a strategic vision to develop research performance at the Palestinian universities in the light of requirements for transition to a research university. Researchers used the mixed method. Quantitative data were collected by using a questionnaire that was applied to (339) university instructors and the qualitative data were collected from three focus groups. The study concluded that the estimations of the study participants on the real research performance at the Palestinian universities were of a relative weight (55.28%). Based on the results, the researchers structured a matrix for strategic analysis and a suggested strategic vision that were presented to a focus group of experts (No=7) in educational administration and scientific research to control it. The study recommended the necessity to adopt the strategic vision suggested by the Palestinian Ministry of Higher Education and Universities, in addition to the adoption of publicized scientific and administrative policies to support the development of the Palestinian universities and the transformation from traditional universities to research universities.

Key words: *Strategic vision, Research performance, Requirements, Research University.*

رؤية استراتيجية لتطوير الأداء البحثي في ضوء التحول نحو جامعة بحثية

الملخص:

هدفت الدراسة إلى اقتراح رؤية استراتيجية لتطوير الأداء البحثي بالجامعات الفلسطينية في ضوء متطلبات التحول نحو الجامعة البحثية. واتبع الباحثان المنهج المختلط، حيث جُمعت البيانات الكمية باستخدام استبانة طبقت على عينة قدرها (339) عضو هيئة تدريس متفرغ في الجامعات المبحوثة، و تم جمع البيانات النوعية من خلال عقد ثلاث مجموعات بؤرية ضمت سبعة خبراء من المختصين في مجالي الإدارة التربوية والبحث العلمي، وتوصلت الدراسة إلى أن تقديرات المبحوثين لواقع الأداء البحثي بالجامعات الفلسطينية جاءت بوزن نسبي قدره (55.28٪) وبدرجة متوسطة، وبناء على هذه النتائج صاغ الباحثان مصفوفة التحليل الاستراتيجي، واقترحا رؤية استراتيجية، تم عرضها على مجموعة الخبراء لضبطها، وأوصت الدراسة بضرورة تبني الرؤية الاستراتيجية المقترحة من قبل وزارة التعليم العالي الفلسطينية والجامعات الفلسطينية، وضرورة تبني سياسات علمية وإدارية مُعلنة لدعم تطوير الجامعات الفلسطينية وتحولها من جامعات تقليدية إلى جامعات بحثية.

الكلمات المفتاحية: رؤية استراتيجية - الأداء البحثي – متطلبات - الجامعة البحثية.

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Introduction:

The complex scientific and economic developments that face the world have forced universities to keep pace with these developments and deal with all the challenges that arise from them. In this sense, the role of the university is not limited to teaching and graduating students only, but rather it provides profound services such as the completion of scientific and applied researches capable of finding radical solutions to the problems of society, and achieving progress for humanity, given that scientific research is the main pillar on which the comprehensive and sustainable development is based, Universities must be open to innovation, respond to the external changes and challenges, and become involved in the competitive struggle in the field of education and scientific research(Vasiliev, 2022).

(Mahmoud, 2022) indicated that scientific researchers lead the process of development and change, as the world is in a race to reach the largest possible amount of accurate knowledge that guarantees comfort and well-being for humans. Hence, some countries have been keened to develop research performance in their research institutions and constantly improve its outputs to be in line with the hopes and aspirations of these societies.

Also, (Ali , 2022) emphasized that the research performance in these institutions include conducting basic researches that contribute to transfer and development of knowledge and the production of new fields that contribute to achieve true development. Research performance is an activity that needs a set of requirements that support its continuous improvement and development.

This respect, (Shraf, Yunus & Al-Ghabashi, 2022) identified this performance in five basic requirements that include administrative and organizational procedures, financial support, faculty procedures, material and technological requirements, and partnership with the private sector.

Accordingly, all requirements for the development of research performance agree on providing an enabling environment for development and innovation along with harmonizing the academic teaching and scientific research processes. This argument has created a university that blends teaching with good research performance, known as the research university model. Research university is composed of specialized academic units for creating and disseminating modern innovative knowledge, focusing on the availability of libraries that offer knowledge-based books and necessary infrastructure for promoting scientific research (Aydin & Damla, 2021).Meantime, (Mbula, Tijssen, Wallace & McLean, 2020) noted that the research university focuses on research tasks and expanding self-capabilities to generate knowledge and improve research in all disciplines. Moreover, (Becker, 2021) stated that "These universities

have gained importance in recent years through their give right to control intellectual property derived from funded research.

Statement of Problem:

Based on the cognitive framework of research performance and research universities, and the results of previous studies that emphasized the importance of providing specific requirements for the development of research performance. The Research University model is based on the adoption of research culture within a system of integrated to encourage scientific research and its development in keeping with the changes of the times and through the work of the two researchers as a university professor and as a part-time lecturer at a Palestinian university and their familiarization with the realities of Palestinian universities focusing primarily on the teaching function, The majority of scientific research is of a predominantly academic nature, which is not achieved. In this context (Naayrat & Aliwi, 2021) showed that the scientific research environment in Palestine is moving towards lecturing and university teaching rather than renewing scientific research. Further, (Al-Saurani, 2022) concluded that there are weaknesses in the activation of scientific research, lack of coordination between universities and poor budgets to encourage scientific research. Al-Surani also stressed that 70% of university professors in the West Bank and Gaza do not work seriously as specialized researchers. Accordingly, there is agreement among the researchers about the problem of the current study; that asserts a need of shift towards research university and activates its requirements to support the Palestinian scientific research system. Thus, the current study problem can be formulated into the following questions:

1- What is the reality of the research performance at Palestinian universities based on the transition to a research university from the faculty's points of view?

2- What a strategy vision is proposed to develop the research performance at Palestinian universities based on the transition to a research university?

The Study Objective:

This study aimed at suggesting a proposed strategic vision to develop the research performance at the Palestinian universities based on the transition to research university.

Literature Review:

From the researchers' point of view the research performance is the research behaviour and scientific research productivity carried out by faculty members at universities and result in new knowledge, as well as their participation in research activities from attending conferences and seminars, publishing articles in journals, and writing books.

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The research performance concept encompasses two primary elements of research and performance. Being an essential academic work, research is a primitive examination and exploration conducted to advance knowledge and insights into phenomena and relations in scientific fields, so performance associated with research activities is understood as the quality of research outputs making gained knowledge available and transferable to others (Nguyen, Pham, Cox & Bui ,2021)

Research findings play a crucial role in producing and evaluating scientists' academic accomplishments, referred to as research performance, a variety of performance measures may be used to evaluate academics' research performance. The most often utilized metrics are peer ranking, the amount of research grants obtained, the number of reviewed publications, and the number of citations (Bandara & Amarasinghe,2023).It is worth mentioning here (Akkar & Al-Amri, 2022) argued that further requirements include developing the performance of scientists and researchers, developing plans, programs and methods, improving legislation, infrastructure and technology, and finding sources and methods for funding.

Here, the study of (Rose, Reeves, Scarpinato & Pelham, 2019) indicated that the literature on University Research shows a growing discussion of the best way to provide support for the university research enterprise and university leaders must consider how to optimize management practices and organizational structures to handle the pressures of external forces like reduced funding and the demand for research in the competitive higher education marketplace Internal forces such as a university's research capacity, faculty's capacity for performing research and grant-seeking, and the support systems for these in fluence the highly complex system that is the university organizational environment.

In their study (Aisawi, Al-Jayar & Juma, 2019) study indicated that there is justification for the model of research universities, the most important of which is the adoption of an integrative approach in supporting scientific and research projects, the re-articulation of the concept of community partnership between sectors of society. Also, such universities are concerned with world-class research; they blend basic researches with research-based education (Mahmoud, 2020).

Therefore, the need for research universities urgently based on the trend of the global rankings of universities, in which scientific research is of great significance (Ahmad & Mahmoud, 2017).

Moreover, there is increase in competitiveness in the international arena as regards attracting the best students, teachers, researchers and so on (in short, talent) and obtaining financial resources at the same time. (Berlanga, Corti, & Perea, 2022)

(Fenwick, 2012) emphasized that the discovery and training of scientists and researchers at research universities constitute the main supporter of the university's global economic and competitive capacity. In this sense, (Huang, 2015) referred to China's interest in developing world-class research universities since the middle of the twentieth century; this is because it has an important role to play in relation to higher education reforms, improving the quality and international competitiveness of higher education.

Moreover, (Fung, Besters-Dilger & Vaart, 2017) indicated that research universities possess several characteristics like developing strategies that enhance collaboration between research and education to implement research-rich curricula, equality in the importance between good teaching and scientific research and focus on rewarding and promoting distinguished university professors and leaders who focus on education, providing teaching with the latest research findings and practices and an active research experience for all students, and supporting a culture of quality through dialogue and cooperation with regard to students' education and their own teaching and research experiences.

Relevantly, research universities focus on developing their organizational structures and reward system. Also, they consider research culture as the prevailing academic culture based on scientific research (Altbach & Salmi, 2011). Undoubtedly, such type of universities is different from that of traditional universities in style, procedures and research performance. (Al-Mutairi, 2012) confirmed the need to support research universities and identify the most important components according to their cognitive and innovative goals. Similarly, (Mohammed, Abduldayim, Nasif, & Serna, 2020) study followed the Japanese model of transformation into a research university of through the development of human resources and funding programs and reliance on innovative management structures that ensure self-sufficiency of the universities. (Druzdzel & Kalagnanam ,2018) study addressed the flexibility of change and continuous progress, targeting budgets to support scientific research.

(Ahmed & Mahmoud,2017), (Hamdan, 2015), and (Al-Mutairi ,2012) referred to many requirements that support the success of research universities. Such requirements include financing, manpower, intellectual climate, academic freedom, partners' commitment, flexibility, talented researcher, cross-border cooperation, research infrastructure, corporate management and control, autonomy, excellence, university vision, organizational culture and the prevailing climate and postgraduate studies, research planning, intellectual property rights and innovation marketing, research agreements and partnership with productive institutions, integration and balance of scientific research capabilities, good governance, talent attraction and concentration, and sufficient funding.

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In this line, the two researchers defined the transformation requirements towards the research university as conditions, standards, specifications and performance adopted by the Modern University of Palestine, which promotes educational and research quality in research, while eliminating traditional performance stereotypes by supporting good governance, promoting talented researchers, in an intellectual climate and culture, providing adequate funding for real scientific researching, research agreements and partnership, and supporting faculty intellectual property rights.

Based on such argument, the requirements for the transition to research university include good governance, that constitutes a supervisory and censorship program that is specific to the application of regulations and laws (AL-Balwa, 2020) and to have a talented researcher with self-training, culture of initiative, and stimulus measures according to (Ahmed &Mahmoud, 2017). Meantime, (Nikolov & Ilieva 2007) stated that such program constitutes "a basis for recruitment and promotion to scientists and experts at research universities and to attract talented students".

On his part, (Cure, 2021) added that sufficient funding enables research universities to recruit senior professors and researchers. Similarly, such funding programs focus on governmental budget for operational expenses and research, contract research with public organizations and private companies, and financial returns from endowments, donations and tuition fees (Horya & Tahlawi, 2017). Also, such programs enhance the quality of scientific research performance, achieve community goals, and maintain research excellence, agreements, and partnership (Al-Yahya, 2021).

Moreover, knowledge sharing in researching brings a great value to the university organization that can improve efficiency, avoid repetition, reduce training costs and the risks of knowledge shortage (Mehrabani & Mohamad, 2011).

Relevantly, protection of intellectual property arises from appropriate measures and strict laws against any violations (Ravi & Manthan, 2021). Also, the (Saudi Intellectual Property Authority, 2021) asserted the need to enhance utilizing scientific research outputs by guiding them in a manner that enhances intellectual property assets of high economic value. Contextually, several studies were conducted on mechanisms to support scientific research and develop research performance in universities.

(Al-Saqry & Al-Mutairi, 2021) study aimed at identifying the scientific research requirements needed to shift towards a knowledge economy in Saudi universities, Also, (Ayad, Younis & Elsayed, 2021) study aimed at developing the research performance of the faculty members in the light of quality standards. (Ammar, 2020) developed a proposed vision for the promoting scientific research at universities. Similarly, (Aydin

,2017) pointed to good research performance as an important criterion for competitiveness among universities and presented factors that affect its development. Also, (Badir ,2020) identified leadership factors in research universities, sources of funding for scientific research at the college, demonstrating the availability of an organizational climate, and the moral and material environment that supports scientific research. Meanwhile, (Mahmoud, 2020) aimed at defining the philosophical framework of the research university, revealing the suitability of the requirements for the transformation of Egyptian public universities into a research university; it demonstrated the sample study agreement on the suitability of certain requirements to the reality of Egyptian universities.

(Druzdzel & Kalagnanam, 2018) explored the financial status of research university and the correlated expenditures and revenues of both teaching and scientific research. They also examined the importance of financial policies at research university according to a model that focus on flexibility of change and development.

Furthermore, (Lavalle & Nicolas, 2017) aimed at examining the level of organizational quality of higher education outputs according to specific criteria determined by Sunedu in Peru in order to reach the standards of research university in Peru. In addition to that, (Kartashova, Shirko, Khomenko & Naumova 2015) highlighted the role of national research universities in supporting scientific research and research activities of students, who prioritized research work.

Method:

Practically, the researchers adopted the mixed research method, which " mixes both qualitative and quantitative methods in a single study or a series of studies to understand a research problem" (Lakshmi,2019). Quantitative data were collected by using a questionnaire and the qualitative data were collected from three focus groups.

Study tools:

***The First Study Tool*:** A questionnaire to measure the reality of research performance at the Palestinian Universities based on the transition to a Research University; it consisted of (32) paragraphs divided into 7 (requirements), namely: good governance(6) phrases, talented researcher(5) phrases, organizational culture(4) phrases, funding(5) phrases, quality of scientific research(4) phrases, research agreements and partnership(4) phrases, intellectual property protection(4) phrases. Participants:

The actual sample consisted of (339) full-time faculty members from doctoral holders in Palestinian universities (Islamic University, Al-Aqsa University, University of Palestine) in the southern Palestinian governorates for (2022), The table.(1) shows the distribution of study sample individuals:

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Table (1): The distribution of study sample individuals

The university	The Number	The percentage
Islamic University	134	39.5
Al-Aqsa University	153	45.1
University of Palestine	52	15.3
Total	**339**	**100.0**

Validity of the questionnaire:

The two researchers tested the validity of the questionnaire. It was presented in its first version to a group of specialized university professors. Then, its reliability was tested of by calculating Pearson's Correlation of each dimension's grades and the overall degree of questionnaire. Pearson's correlation coefficient has also been calculated between each phrase of the questionnaire and the overall degree to which the phrases belong. The correlations among the paragraphs and the overall degree of every dimension to which they belong is significant at level (0.01).

Table (2): The correlation coefficient of each phrase with the total degree of the dimension to which it belongs

Sig.	Correlation Coefficient	Domain	No.	Sig.	Correlation Coefficient	Domain	No.	Sig.	Correlation Coefficient	Domain	No.
0.000	.915**	Third Dimension: Organizational Culture & Climate	1	0.000	.925**	Second Dimension:Human Resources	1	0.000	.915**	First Dimension: Good governance	1
0.000	.909**		2	0.000	.818**		2	0.000	.943**		2
0.000	.744**		3	0.000	.933**		3	0.000	.965**		3
0.000	.899**		4	0.000	.873**		4	0.000	.929**		4
				0.000	.904**		5	0.000	.945**		5
0.000	.944**	Sixth Dimension: research Agreements & Partnership	1					0.000	.759**		6
0.000	.913**		2								
0.000	.920**		3	0.000	.932**	Fifth: Dimension: Quality of Scientific Research	1	0.000	.924**	Fourth Dimension: Financing	1
0.000	.913**		4	0.000	.968**		2	0.000	.945**		2
				0.000	.963**		3	0.000	.913**		3
0.000	.879**	Seventh Dimension: protection of intellectual property	1	0.000	.969**		4	0.000	.944**		4
0.000	.912**		2					0.000	.891**		5
0.000	.936**		3								
0.000	.921**		4								

* Table at a degree of freedom (28) and at sig. (0.01) = 0.463
* Table at a degree of freedom (28) and at sig. (0.05) = 0.361

To verify the constructive validity of the dimensions, the two researchers calculated the correlation coefficients between the degree of each dimension of the questionnaire and its overall degree. Eventually, all questionnaire dimensions were correlated to each other and to the overall degree in a statistically significant way at level (0.01).

Table (3): Formative Validity of Questionnaire

Requirements	Total score of Questionnaire	Sig.
Good Governance	0.000	0.969**
Talented Researcher	0.000	0.936**
Organization Culture	0.000	0.940**
Funding	0.000	0.960**
Scientific Research Quality	0.000	0.963**
Research Agreements & Partnership	0.000	0.977**
Intellectual Property Protection	0.000	0.866**

* Table at sig (28) and at sig (0.01) = 0.463
* Table at sig (28) and at sig (0.05) = 0.361

Reliability of the questionnaire:

The two researchers tested the reliability of the questionnaire by applying Split Halfway on the members of the sample. The result showed that the overall reliability of the questionnaire was (0.987), as shown on table (4) and the Alpha Cronbach factor was (0.990), as shown on table (5). This result showed that the questionnaire has a high degree of reliability.

Table (4): The correlation coefficients between the two halves of each dimension of the questionnaire and the questionnaire as a whole before modification and reliability after modification

Requirements	Items No	Correlation Coefficient before modification	Reliability Coefficient
Good Governance	6	0.868	0.929
Talented Researcher	5*	0.895	0.931
Organization Culture	4	0.749	0.847
Funding	5*	0.889	0.970
Scientific Research Quality	4	0.925	0.961
Research Agreements & Partnership	4	0.893	0.943
Intellectual Property Protection	4	0.899	0.974
Questionnaire Total Rank	32	0.975	0.987

* The GMT equation was used because the two criteria were unequal

Table (5): Alpha Cronbach's coefficients for each item and the questionnaire as whole

Requirements	Items No	Cronbach Alpha Coefficient
Good Governance	6	0.961
Talented Researcher	5	0.940
Organization Culture	4	0.932
Funding	5	0.958
Scientific Research Quality	4	0.964
Research Agreements & Partnership	4	0.950
Intellectual Property Protection	4	0.935
Questionnaire Total Rank	32	0.990

The Second Study Tool:

The two researchers used the focus group with participation of (7) experts specialized in educational management; they were briefed on the results of the analysis

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matrix and had three sessions with them discussing the final structure of the strategic vision.

The statistical methods which used:

The two researchers used standards of means, percentages and relative weights. expert responses were coded, data were analyzed and compiled in paragraphs.

Finding and Discussion:

The rubric used in the study was determined by finding the length of the cells in the questionnaire of 5-scale Likert as shown in the following table, (Ozen, Yaman & Acer, 2012):

Table (6): The rubric adopted in the study.

Cell Length	Corresponding Relative Weight	Availability
01.0 - 1.80	20% - 36%	Very low
1.81 - 2.60	36% - 52%	Low
2.61 - 3.40	52% - 68%	Medium
3.41 - 4.20	68% - 84%	high
4.21 – 5.00	84% - 100%	Very high

The answer of the first question:

What is the reality of the research performance at Palestinian Universities based on the transition to a research university from the faculty's points of view?

To answer this question, the researchers have undertaken the following processes:

Table (7): Means, Standard Deviations and Relative Weight of Requirements

Requirements	Medium	Standard Deviation	Relative Weight	Order	Rank
Good Governance	2.889	1.076	57.77	2	Medium
Talented Researcher	2.910	1.052	58.21	1	Medium
Organization Culture	2.796	1.065	55.91	4	Medium
Funding	2.497	1.058	49.94	7	Low
Scientific Research Quality	2.759	1.134	55.18	5	Medium
Research Agreements & Partnership	2.808	1.130	56.17	3	Medium
Intellectual Property Protection	2.650	1.097	52.99	6	Medium
Questionnaire Total Rank	**2.764**	**0.984**	**55.28**	**Medium**	

Table (7) shows that the arithmetic means of respondents' responses to the research performance at the Palestinian universities based on the requirements of the transition to a research university was (2.764) with a relative weight of (55.28) and a medium rank. The researchers attribute this finding to the university management of the application of research requirements to develop research performance. However, the indicator refers to some inadequacy in applying the policies that support the development of research performance; attributed to political and economic challenges that negatively affect the achievement of academic independence and funding, which constitute the most important requirements for developing research performance. This

result is consistent with (Makhlouf & Al-Bahabh ,2023) where the most important impediments to scientific research are correlated with the university, legislations, researcher, and financial impediments. Similarly, (Al-Saurani, 2022) concluded that Palestinian universities have crises that impeded upgrading academic and research quality. The most important crises include inadequacy of scientific research, absence of universities coordination and partnership, pressure of teaching and administrative work in regard to job quality, as for the paragraphs of the questionnaire, the detailed results of the questionnaire were presented and discussed, as shown below:

1.Analysis of the phrases of the good governance requirement:

Table (8): Means, Standard Deviations and Relative Weight of phrases (Good Governance)

No	phrases	Teachers' Responses					Means	S. Deviation	Order	Relative weight
		1	2	3	4	5				
1	The University's vision encourages innovation and renewal	50	82	57	99	51	3.056	1.314	1	61.12
2	The organizational structure of the university supports academic freedom	53	98	40	108	40	2.953	1.307	4	59.06
3	The University seeks opportunities for full autonomy in scientific research and creativity	54	73	80	89	43	2.982	1.276	3	59.65
4	University leadership investigates the application of the principles of transparency and justice in the field of scientific research	46	83	72	97	41	3.012	1.250	2	60.24
5	The University aligns opportunities of management support with the sustainability of research activity	54	88	82	81	34	2.861	1.234	5	57.23
6	The University holds faculty accountable for their research performance	77	111	82	53	16	2.469	1.142	6	49.38
	Total Degree of requirement						**2.889**	**1.076**		**57.77**

Good governance came second with a relative weight of (57.77%), attributed to trends to consolidate the principles of good governance, which supports moving to research university and developing research performance through control systems and administrative procedures. However, the indicator shows negative effects that impede the integration of applying governance due to political constraints that affect universities' autonomy and academic freedom, causing a negative impact on freedom of thought, research performance, and absence of leadership role that holds accountable of the process of developing research performance of faculty members, These findings are consistent with (Badir, 2020) study which emphasized the

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importance of having an organizational structure and expert leadership and applying good governance in research universities.

Here, paragraph (1) was ranked first with an medium score and a relative weight of (61.12%), the researchers attribute this to the fact that university managements possess a degree of strategic ambition that makes them aware of the scale of its true scientific and societal responsibility, its competitiveness in the context of knowledge revolutions and knowledge economy market, which in turn prompted them to determine their visions to support innovation and renewal, as a key solution for developing research performance. Paragraph (6) was ranked sixth in the last with little or no relative weight of (49.38%), attributed to the gap between the belief of university leaders in the principles of governance as a key request to shift towards a research university and the application of these principles, and the lack of an accountable leadership role to develop faculty members' research performance in addition to the lack of autonomy of the research universities and the lack of freedom, which impede the university's administration from holding certain faculty members accountable, in addition to the absence of job satisfaction for many faculty members that negatively affects their research performance.

2. Analysis of the phrases of the talented researcher's requirement:

Table (9): means, standard deviations and relative weight of the phrases (talented researcher)

No	phrases	Teachers' Responses					Means	S. Deviation	Order	Relative weight
		1	2	3	4	5				
1	The university takes advantage of internal opportunities to attract a talented human resource (scientific and research).	65	107	72	74	21	2.643	1.194	5	52.86
2	The university offers opportunities for research teams.	46	87	80	88	38	2.956	1.229	2	59.12
3	The university invests talented researchers for scientific research awards.	53	90	74	79	43	2.909	1.276	3	58.17
4	The university takes advantage to publish research in globally indexed journals (Scopus, etc.).	34	66	85	95	59	3.233	1.234	1	64.66
5	The University invests intellectual capital to enhance the competitive advantage in the field of research.	51	108	65	84	31	2.811	1.226	4	56.22
	Total Degree of requirement						**2.910**	**1.052**		**58.21**

Obviously, talented researcher came first with a relative weight of (58.21%), attributed to universities' efforts to develop research performance by upgrading talented researcher's quality as an intellectual capital responsible for developing scientific research outcomes and as one of the most important requirements of moving into research university. However, the relative indicator shows some shortcomings, resulting in the drainage of minds, poor research performance due to absence of moral and material stimulation and burdens of teaching, Those results were in line with

(Mohammed et al., 2020) study which confirmed that Japan's research universities focused on developing highly efficient human resources.

Paragraph (4) was ranked first with medium score and a relative weight of (64.66%). The researchers attributed this to the fact that universities' efforts to develop researchers' skills and encourage scientific research by activating research policies that contribute to raising the adequacy of scientific research and its outputs and to the legislation of guidelines ask researchers to publish in globally indexed journals. This is due to the leadership's conviction that competition over the publication of scientific researches in global journals drives researchers towards the refinement of their scientific researches, creativity and innovation. Meantime, paragraph (1) is ranked the fifth, the last with medium and a relative weight of (52.86%). The researchers attributed this result to overwhelming research universities with political and economic threats; which adversely affected its lack of autonomy with external threats interfering in the selection and employment processes away from the principle of academic and research reputation. Here, (Al-Yahya, 2020) remarked that one of the most important elements of the transition to a research university is the attraction and concentration of the talents through clear admissions policy, linking higher education to the labor market.

3.Analysis of the phrases of organizational culture requirement:

Table (10): means, standard deviations and relative weight of phrases (organizational culture)

No.	Phrases	Teachers' Responses					Means	S. Deviation	Order	Relative weight
		1	2	3	4	5				
1	The University takes opportunities to raise the morale of researchers.	71	100	70	69	29	2.661	1.252	3	53.22
2	Organizational structure promotes the principle of cooperation between specialized research teams	69	101	74	73	22	2.640	1.209	4	52.80
3	The University promotes positive relationships between faculty members and students	41	70	89	92	47	3.100	1.229	1	62.01
4	The University stimulates workers to start	50	106	78	78	27	2.782	1.187	2	55.63
	Total Degree of requirement						**2.796**	**1.052**		**55.91**

Organizational culture came fourth with a relative weight of (55.91%), attributed to universities' strategical vision to promote a culture of creativity and innovation and develop research performance. Yet, these efforts suffer inadequacies and need to be effectively transformed into actual research university that essentially nourishes research culture, organizational climate and research environment (AL-Saqry& AL-Mutairi,, 2021, p. 1856) study emphasized the need for a culture of innovation in order

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for scientific research to play its role, and (Ahmed and Mahmoud, 2017) study illustrated that organizational culture of research university is shaped by its policy of facilitating innovation activities.

Here, paragraph (3) was ranked first with a medium score and a relative weight of (62.01%). The researchers attributed this result to the fact that the researching university community is a small representation of the Palestinian community, which is known for the enhanced social climate of values of love, sharing and exchange of experiences and knowledge. Therefore, the university administration seeks to develop a positive organizational culture among all the university's employees, as a result it will enhances research performance. This finding is consistent with the results of (Badir, 2020) study, which emphasized the need for an organizational climate and a moral environment supportive of scientific research in research universities. On the other hand, paragraph (2) came last, fourth with a medium score and a relative weight of (52.80%). The researchers attributed this result to a stalemate of activating organizational structures that support the development of research performance and their inability to accomplish tasks within complex dynamic environments through the formation of research teams, and the inaction of some researchers to participate in research teams, this result varies with the result of (Aydin, 2017) study which emphasized the importance of working within research teams to develop scientific research.

4. Analysis the phrases of (Funding) requirement:

Table (11): means, standard deviations and relative weight of phrases (Funding):

No	phrases	Teachers' Responses					Means	S. Deviation	Order	Relative weight
		1	2	3	4	5				
1	The university provides financial funds for researchers to publish in scientific journals.	65	107	72	74	21	2.378	1.266	5	47.55
2	The university invests funding sources to enable faculty members attend scientific conferences.	46	87	80	88	38	2.658	1.212	2	53.16
3	The university takes advantage of funding opportunities to develop infrastructure supportive of research needs.	53	90	74	79	43	2.761	1.201	1	55.22
4	The university seeks to take advantage of financial and in-kind donation opportunities to support scientific research.	34	66	85	95	59	2.605	1.253	3	52.09
5	The university has a fund to support research activities.	51	108	65	84	31	2.389	1.160	4	47.79
	Total Degree of requirement						**2.497**	**1.058**		**49.94**

Funding came seventh with a relative weight of (49.94%), attributed to economic and political conditions of the Palestinian environment, resulting in universities'

financial crises; hindering them to meet the basic requirements of research university to support research performance, and causing inadequacy of university's financing policies, which must be reformulated and its strategy restructured by activating the requirements of research university, which always seeks strategies and plans to provide funding for scientific research, Based on these findings, (Al-Saurani, 2022) study pointed out that reducing the financial role of the Palestinian Government has led universities to increase the amounts of universities' premiums and the number of students enrolled to fill budget deficits, affecting the quality of education. The indicator also shows the inadequacy of the university's funding policies, compared to the high level of its operational and educational bud

get, which was initially caused by the lack of autonomy of universities from political parties. In this sense, (Akkar & Al-Amri, 2022) study asserted that one of the most important requirements for the development of scientific research is the availability of financial support.

Paragraph (3) was ranked first with a medium score and a relative weight of (55.22%). The researchers attributed this finding to the understanding of the university leaders of the importance of developing their infrastructure in order to develop their research performance, within a supportive environment such as the research university model. Meanwhile, universities face economic challenges that have rendered them unable to achieve internal development. All this facet of the university leaders to look for all external opportunities to provide the technical deficit they need. (CÜRE, 2021) study pointed that research universities seek financial returns from donations and gifts that are attractive to senior professors and researchers. However, paragraph (1) came last fifth with a low score and a relative weight of (47.55%). The researchers attributed this result to the financial threat faced by the research universities and the limited opportunities for financial allocations provided by the Government. Lack of the portion from Waqf assets that might contribute to financing scientific publishing. Also, the latter's reliance on tuition fees as a key source of funding made the university administration unable to provide financial opportunities for scientific publication in the scientific journals of the Court. This result differs with the outcome of (Mahmoud, 2020) study, which showed the need for financial support for scientific research.

5. Analysis of the phrases of the scientific research quality requirement:

Table (12): means, standard deviations and relative weight of phrases (quality of scientific research):

No	phrases	Teachers' Responses					Means	S. Deviation	Order	Relative weight
		1	2	3	4	5				
1	The university is keen to support its talented researchers.	67	110	69	70	23	2.622	1.206	4	52.45
2	The University supports the continuous upgrading of scientific	67	104	66	76	26	2.676	1.236	3	53.51

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	research outputs to suit the needs of the community.									
3	The University promotes the concept of faculty's research renewal by producing innovative knowledge.	59	97	74	83	26	2.764	1.218	1	55.28
4	The University looks for opportunities to provide an encouraging scientific climate for collaborative scientific research.	84	76	67	74	38	2.723	1.346	2	54.45
	Total Degree of requirement						**2.759**	**1.134**		**55.18**

The quality of scientific research came fifth with a relative weight of (55.18%), attributed to administrative stalemate of policies related to scientific research, absence of researchers' material and moral motivation to produce innovative scientific research and develop research performance, and lack of accountability of faculty staff's research quality, considering scientific research as a means of having academic promotion only. This finding supports moving into research university that consequently supports the refinement of scientific research outputs within policies and objectives defined by suitable programs and mechanisms, these results differ with the study of (Druzdzel & Kalagnanam, 2018) which emphasized the need to develop scientific research and provide its funding. This is achieved only within an administrative system such as the university's research model that supports the development of scientific research.

Paragraph (3) was ranked first with a medium score and a relative weight of (55.28%). The researchers attributed this finding to the desire of universities to achieve research excellence and upgrade their research output, and to achieve competitive advantage among other universities. Although this indicator suggests a deficiency in the development of research performance, as confirmed by (Akkar & Al-Amri, 2022) study that the biggest problems facing scientific research include administrative complexities and the absence of innovation-based research strategies, which can only be overcome by an administrative system such as a research university. Meantime, paragraph (1) came fourth with a medium score a relative weight of (52.45%). The researchers attribute this to the administrative stalemate in the universities and the absence of talent management use that focuses on attracting talented researchers and developing their research performance. Furthermore, talent and innovation always need freedom and independence to work and allocate financial balances to provide the necessary needs, all of which correspond to the requirements of the transition towards the research university.

6.Analysis of phrases of the requirements of research agreements and partnership:

Table (13): means, standard deviations and relative weight of phrases (research and partnership conventions)

No	phrases	Teachers' Responses					Means	S. Deviation	Order	Relative weight
		1	2	3	4	5				
1	The university supports knowledge sharing among departments and colleges within the university.	67	99	71	69	33	2.711	1.264	4	54.22
2	The University is constantly looking for new research partnership channels.	36	96	82	82	43	3.000	1.209	1	60.00
3	The University takes advantage of partnership opportunities to improve the outputs of scientific research	50	101	71	87	30	2.841	1.216	3	56.81
4	The University seeks opportunities for scientific visits between its students and international university students.	66	84	68	76	45	2.853	1.329	2	57.05
	Total Degree of requirement						**2.808**	**1.130**		**56.17**

Research and partnership agreements came third with a relative weight of (56.17%), attributed to strategic ambition of universities to develop multiple research partnerships with the business sector to improve researchers' performance through applying joint researches and funding, albeit to a moderate degree, but it constitutes a building block to moving into research university, establishing external relations, exchanging information, and transferring experiences to achieve future visions and qualifying research performance ,based on such results, (Ahmed &Mahmoud, 2017) study investigated the American Institute of Massachusetts methodology, which is concerned with strategic industry through the activation of research partnerships and joint research between the Institute and industrial institutions.

Paragraph (2) was ranked first with a medium score and a relative weight of (60.00%), attributed to the fact that the management of the research universities seeks to apply a supportive vision to improve and develop the research performance by activating the most important requirement for the transition to the research university which is the search for partnership channels and the achievements of twinning with other universities and research centers. This finding comes consistent with (Al-Saqry & Al-Mutairi, 2021) study which emphasizes the need for research cooperation to develop scientific research, while paragraph (1) was ranked fourth and last with a medium score and a relative weight of (54.22%), attributed to the absence of a flexible organizational structure concept that supports horizontal work and collaboration within departments and colleges, and weakens the dissemination of a culture of exchange of values and research experiences among researchers in the departments, thereby reducing the effectiveness of their research performance. This result varies with both the requirements of performance development and the parameters of the research university where it concluded. (Aydin & Damla, 2021) study

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found that a research culture dominating research universities requires participatory and collaborative relationships among faculty members.

7.Analysis of the phrases on intellectual property protection requirement:

Table (14). means, standard deviations and relative weight of each phrase (intellectual property protection)

No.	phrases	Teachers' Responses					Means	S. Deviation	Order	Relative weight
		1	2	3	4	5				
1	The university applies the laws to protect intellectual property.	67	99	71	69	33	2.770	1.199	1	55.40
2	The university invests opportunities to promote the intellectual property assets of high economic value.	36	96	82	82	43	2.617	1.194	2	52.33
3	The university provides the potentials to protect intellectual property in a way that can be managed effectively.	50	101	71	87	30	2.614	1.212	3	52.27
4	The university seeks to improve the interest of intellectual property (owned or licensed).	66	84	68	76	45	2.599	1.201	4	51.98
	Total Degree of requirement						**2.650**	**1.097**		**52.99**

Intellectual property protection came sixth with a relative weight of (52.99%), attributed to the vision and policies of universities that lack marketing research products and seek to transform implicit knowledge into an economic marketing value. This finding is attributed to poor research performance, which weakens practical outputs that realize intellectual property. This supposition emphasizes the need to move into research university whose most important requirements include supporting intellectual property protection and encouraging research performance towards patents of innovation, (The Saudi Intellectual Property Authority, 2021) pointed out that the first place of innovation and its development is research universities. Therefore, the university's research policy must be adopted, which promotes intellectual property assets for scientific research and encourages all parties, university, the researcher and the marketers to support scientific research.

Paragraph (1) is ranked first with a medium score and a relative weight of (55.40%), attributed to the fact that the philosophy of university leaders tends to protect scientific research and the information it contains within laws to protect intellectual property in the short term. So, it becomes, in the long run, an incentive for researchers to refine their research performance, to ensure that patents and copyright are protected. However, the indicator still points at some shortcomings in the application of intellectual property protection. Meantime, paragraph (4) was ranked fourth, the last, with a low relative weight of (51.98%), attributed to lack of talent management application that has weakened intellectual production outputs and research performance, adversely affecting patent registration strategies in investment

contracts that benefit universities in addition to the absence of a integrative relationship between the freedom of scientific research and the culture of innovative scientific research, resulting in deficiency in research outputs that may not reach at the level of patenting, leasing and investing them.

The answer of the second question:

What a strategy vision is proposed to develop the research performance at Palestinian universities based on the transition to a research university?

To achieve the major objective of setting up a proposed strategic vision to develop research performance at Palestinian universities based on the transition to a research university, the researchers applied the following procedures:

First: Quadrilateral strategic analysis of Palestinian universities' research performance based on the transition to a research university; including benefiting from the results of the field study, literature on research performance and research university, the examination of the universities' strategic plans and the reviewal of its website, identifying the strengths and weaknesses of the internal environment, ultimate opportunities, and the threats of the external environment of the three universities.

Table (15): Quadrilateral Strategic Analysis Matrix of Palestinian Universities' Research Performance

Strengths	**Weakness**
- A strategy supportive of innovation and development. - Distinguished academic researchers. - Transparency and equity in scientific research. - creating scientific research climate - Orientation to intellectual property protection laws. - A refereed journal to facilitate publishing for researchers. - Research centres and incubators at universities. - Holding research competitions on scientific research. - Electronic libraries Central university libraries.	- Lack of flexible organizational structure - Reliance on administrative bureaucracy. - Failure to hold faculty members accountable for their research performance. - Poor academic freedom. - Weak administrative support for research performance development. - Difficulty of full-time scientific research. - Lack of promotion of quality research. - Lack of mechanisms to attract talented researchers. - lack of specialized research teams and knowledge sharing departments. - Budget shortcomings for research activities. - Inadequate support for talented researchers. - A gap between research products and society's problems. - Insufficient potentials for intellectual property protection
Threats	**Opportunities**
- Political and economic threats. - the duplication of decisions between the two parts of the nation. - Lack of university autonomy due to multiparty pluralism.	- Establishing a governmental scientific Research Council. - Higher education policies encourage innovation and creativity. - partnership channels with regional and global universities

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- Inadequate Governmental budget. - Globalization and accelerated cognitive explosion. - Scarcity of financial contributions and weak financial moratorium for scientific research. - Lack of mutual trust between the universities and the private sector. - Inadequate contributions by society and the private sector in providing resources to support scientific research purposes. - Difficulty in localizing technology to serve scientific research. - Weak cooperation between universities and productive institutions.	- Academic scholarships. - Students' readiness to enrol in postgraduate programs. - Good academic reputation for universities that constitute an attractive impetus for researchers. - Local, regional and international scientific conferences. - Periodic follow-up by the accreditation and quality unit of the Ministry of Education higher.

Second A Suggested Strategic Vision:

Based on the researchers' familiarity with education literature related to the current study, the results of the study and the strategic analysis matrix, the two researchers concluded that there is a possibility to develop research performance at universities through developing a strategic vision that sustains the strengths and addresses weaknesses. The researchers used the focus group with participation of (7) experts specialized in educational management; they were briefed on the results of the analysis matrix and had three sessions with them discussing the final structure of the strategic vision.

General Framework of the Proposed Strategic Vision:

1. The Vision: Non-profit research universities based on research culture that supports the development of research performance and innovative applied researches that address the problems of society, within organizational climate that stimulates creativity and innovation up to patent of invention.

2. Mission: Palestinian universities transform into research universities to develop research performance and keep abreast of the global knowledge explosion, within an integrated system of requirements that must apply governance, care for talented researcher and provide him with academic freedom, casting upgrading the culture of innovative scientific research, providing it with financial aid and protecting intellectual property.

3. Values: autonomy, justice, transparency, academic freedom, innovation, cooperation, initiation, excellence.

4. Strategic Objectives and Mechanisms to achieve them**:**

Table (16): Matrix of Strategic Objectives

Strategic Objective (1): Implementing Good Governance
Strategic objective (1-1): Activating Regulatory and Legal Framework through the Following Mechanisms:

- Abandoning traditional management systems and adopting modern management methods. - Just choice of university leadership according to clear and publicized criteria for community parties. - Consolidating management values of transparency and accountability. - Developing strategies to support universities' separation from the political system. - Periodic follow-up of the application of governance principles and the measurement of performance quality. - Achieving academic freedom and publication. - Activating accountability and liability systems of all university employees. - Implementing a culture of separation of private property or political authorities from university administration.
Strategic Objective (1-2): Redesigning Organizational Structures through the Following Mechanisms:
- Restructuring departments and establishing specific structures for colleges and departments. - Facilitating the work of a flexible organizational structure that works to build a culture of educational and research values. - Achieving structural flexibility in line with the changes. - Exercising justice and transparency during the formation of university councils. - Moving away from centralization in decision-making and promoting decentralization
Strategic objective (2): Caring for Talented Researcher
Strategic Objective (2-1): Implementing Talent Management through the Following Mechanisms:
- Activating mechanisms to attract researchers. - Adopting the selection according to academic and scientific competence away from favouritism. - Organizing training programs for the professional development of researchers. - Providing logistical and material support to talented academics. - Renewal of distinguished researchers' contracts after the termination of their years of service based on their research competence. - Continuous encouragement of researchers for more innovation and creativity. - Reducing brain migration by offering researchers job satisfaction. - Achieving justice in scientific publishing and attending external scientific conferences and scholarships. - Linking the system of scientific promotions to scientific research quality. - Free scientific publishing for researchers. Reducing the administrative loads of researcher.
Strategic objective (3): Disseminating the Research Organizational Culture
Strategic objective (3-1): Providing the Regulatory Climate for Scientific Research through the Following Mechanisms:
- Developing administrative regulations to promote university culture of research and innovative scientific research. - Casting a culture of continuous quality performance. - Increasing opportunities for periodic meetings between researchers. - Enhancing academic and research fellowships between local and international universities. Disseminating philosophy of collective action.
Strategic objective (3-2): Promoting Positive Organizational Behaviour through the Following Mechanisms:
- Encouraging team spirit within the specialized task forces. - Promoting spirit of competition among researchers.

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- Enhancing researchers' sense of belonging. Establishing scientific research ethics committees to adopt research and resolve conflicts.
Strategic objective (3 - 3): Cultivating Research Values through the Following Mechanisms:
- Enhancing researchers' confidence in research skills. - Instilling values of creativity and innovation in scientific research. - Promoting future values as a basis for future scientific research. - Encouraging researchers to embrace the values of exploration and renewal. - Cultivating values of collaboration and knowledge sharing among researchers.
Strategic Objective (4): Providing sources of funding
Strategic objective (4-1): Diversifying university funding sources through the following mechanisms:
- Raising the financial proportion of government to support scientific research. - Issuing government decisions to pay a portion of tax to finance local universities. - Exploring opportunities for contractual and regional research to invest future financial return. - Exploring the beneficiaries of researches to finance their own researches. - Investing research chairs as a source of funding. - Establishing endowment funds to finance scientific research. - Providing continuous updated database to all donors according to areas of interest or specialization.
Strategic objective 4-2: Adopting the idea of productive university through the following mechanisms:
- Establishing a special unit for the marketing of scientific research. - Exploiting opportunities to provide publicity to the private sector to exchange funding of scientific conferences. - Exploiting research funds to support applied scientific research. - Adopting and marketing researchers' creative initiatives and ideas to attract funding support. - Holding exhibitions within universities to market the products of scientific research.
Strategic objective (5): Paying Attention to the quality of scientific research
Strategic objective (5-1): Examining the reality of scientific research through the following mechanisms:
- Establishing task forces and research committees. - Prioritizing scientific research in Palestine. - Conducting surveys on the realities of scientific research in universities. - Identifying the strengths and shortcomings of scientific research.
Strategic objective (5-2): Developing research performance through the following mechanisms:
- Establishing a unified and independent scientific research council at the level of the country's universities. - Adopting a research plan to develop research performance. - Forming specialized research groups from colleges. - Urging researchers to conduct scientific research in accordance with international standards. - Providing financial opportunities for researchers to publish in international journals. - Provision of research grants to researchers. - Developing researchers' research skills.
Strategic objective (5-3): Improving scientific research outputs through the following mechanisms:

- Establishing a national centre for research and scientific studies and linking it to all institutions of society. - Forming research teams to carry out anticipatory studies to discover society's needs. - Encouraging researchers' participation in scientific conferences and seminars. - Encouraging researchers to carry out applied and qualitative research.
Strategic objective (5-4): Providing the necessary infrastructure for scientific research through the following mechanisms:
- Providing research laboratories with equipment. - Investing logistics services and research centres within the university to support scientific research. - Establishing a common database on scientific research among local universities. - Participating in regional and global databases and magazines.
Strategic objective (6): Strengthening research conventions and partnership
Strategic objective (6-1): Operationalizing Research agreements and partnerships through the following mechanisms:
- Defining controls, regulations and laws to regulate agreements and partnerships. - Identifying research priorities needed by productive enterprises. - Creating a database of partner institutions locally, regionally and globally. - Establishing an advisory research council from universities and the private sector. - Focusing on scientific incubators that support opportunities for partnership with private sector institutions. - Adopting integration programs between university and production institutions. - Holding workshops between researchers and institutions to deal with research problems.
Strategic objective (6-2): Strengthening connectivity with productive enterprises through the following mechanisms:
- Providing research services to productive and investment institutions. - Strengthening trust between universities and productive institutions. - Providing opportunities for private sector experts to participate in scientific research. - Implementing priority researches within productive institutions. - Implementing researches in support of economic development.
Strategic objective (7): Applying Intellectual property protection
- Applying intellectual property management. - Establishing laws that encourage researchers to register patents. - Establishing a competent office to assist researchers in registering patents. - providing opportunities for those who wish to register a patent. - Urging researchers to produce and patent innovative research. - Providing part of the financial support to patent registration. - Establishing an updated database to register patents and protect them from violation.

Conclusion:

Based on the findings, the Palestinian Ministry of Higher Education and university leaders must take care of scientific research and develop the performance of researchers by implementing the requirements of research university and converting from traditionally-toned universities to research universities with a predominantly research nature and to provide society with basic researches. Hence, the researchers recommend applying the strategic vision of this study and adopting publicized scientific

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and administrative policies to develop Palestinian universities. Besides, they recommend localizing the thought of cognitive development and updating as an on-going process along with the realization of academic freedom and creativity. Moreover, they recommend the development of strict policies against the repetition of scientific researches by linking financial rewards to the amount of innovative scientific additions accomplished by the scientific researcher. The researchers of the current study advise other researchers to invest research expertise in university policy-making consistent with the university's research requirements, seeking to set standards for the refinement of scientific research outputs, balancing the teaching and research tasks of researchers, furthermore, the researchers also call for activating the relations between researchers in Palestinian universities and their peers from regional and international universities.

References

Ahmed, M. & Mahmoud, A. (2017). A Suggested Proposal for Egyptian Research University in light of the experience of Massachusetts Institute of Technology in the United States of America and the University of Cape Town in South Africa*. Journal of Comparative and International Education*, (8): 11-225.

Akkar, H, & Al-Amri ,A .(2022) .Requirements for the development of scientific research in Yemeni universities from experts persons *. Journal of Educational and Psychological Sciences,6*(21): 1-21.

Al-Balwa, M. (2020). The Reality of Funding Governance in Saudi Public Universities An Analytical Study. *Journal of Reading and Knowledge*, (3): 223-247.

Ali, M.(2022) . Suggested Mechanisms for developing Research Performance at Beni-Suef University Using the Performance Prism .*Journal of the Faculty of Education*,*19*(61): 114-138.

Al-Mutairi, N. (2012). *A Proposal for Transforming the Saudi Universities into Academic Research Centers in the Context of Challenges Faced by Knowledgeable Societies.* (Doctoral dissertation). Um Al-Qura University, Saudi Arabia.

AL-Saqry,A. & AL-Mutairi, J .(2021) .Scientific research requirements for the transition towards a knowledge economy in Saudi universities .*Journal of Educational and Psychological Sciences*,*4*(14): 1846-1878.

Al-Saurani, G .(2020) .*The Education Crisis in Palestinian Universities*. Retrieved 25 January, Retrieved from https://www.ahewar.org/debat/files/758682.pdf.

Altbach, G. & Salmi, J.(2011). *The Road to Academic Excellence the Making of World-Class Research Universities*. The World Bank.

Al-Yahya, H. (2020). *Research Universities and Education Economics.* Kingdom of Saudi Arabia. KSA*: Um* Al-Qura University.

Aisawi, R. , Al-Jayar, S. & Juma, F .(2019) .Development of research universities in Egypt in the light of the experiences of some countries. *Journal of Scientific Research in Education*, (20): 919-936.

Ammar, B. (2020) Developing scientific research in Arab universities in light of international standards for university Ranking .*Journal of University Performance Development,12*(1): 409-427 .

Ayad, M., Younis, M. & Elsayed, S. (2021) .Developing the research performance of the faculty member in the light of quality standards a field study on Menoufia University .*Journal of the Faculty of Education,36*, Special Issue: 128-176.

https://doi.org/10.20428/ajqahe.v15i53.2109

Aydin, B. & Damla, Ö.(2021). Establishment and Challenges of Research University in Turkey. *Psycho-Educational Research Reviews, 10*(2): 92- 105.

Aydin, O. (2017). Research Performance of Higher Education Institutions: A Review on the Measurements and Affecting Factors of Research Performance. *Journal of Higher Education and Science*, *7* (2): 312-320.

Badir, K. (2020, October 10-11). Factors of leadership in research universities: Arab East College as a model. Paper *presented to the Thirteenth International Conference on Studies in University Education*, 153- 164.

Bandara, J. & Amarasinghe, N.(2023). Factors Affecting the research performance of science research institutions in Srilanka . EPRA International Journal of Research and Development, *8*(1): 8-15.

Becker, K. (2021). Research universities, incubators of (urban) innovation. The *European Physical Journal*, 1-10.

Berlanga, V. , Corti, F. & Perea , E.(2022). Design of a Multidimensional Index of Classification of Rankings of Ibero-American Universities. *International Journal of Instruction, 15*(4): 17-34. Retrieved from https://www.e-iji.net/dosyalar/iji_2022_4_2.pdf

Cure, N.(2021). *Structuring Research Universities in Turkey: A Phenomenological Case Study*. (Master dissertation). Middle East Technical University.

Druzdzel , M. & Kalagnanam ,J .(2018). *Performance Budget Planning: The Case of a Research University*. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7731919/ .

Fenwick, B. (2012). *The Current Health and Future Well-Being of the American Research University*. Amsterdam. Netherlands: Elsevier.

Fung , D. , Besters-Dilger , J. & Vaart , R.(2017). *Excellent education in research-rich universities .LERU publications*.

Hamdan, A. (2015). Towards World-Class Research Universities: A Holistic Study in Arab Universities. *Omran Journal, 13*: 65-104.

Horya, A. & Tahlawi, M. (2017). A proposal for transform into research universities in light of knowledge economy. *Journal of the Association of Arab Universities for Research in Higher Education, 37*(3): 55-89.

Huang , F.(2015). Building the world-class research universities: a case study of China, *The International Journal of Higher Education Research*, *69*(4): 1-15.

Kartashova, A. , Shirko ,T. , Khomenko , I. & Naumova ,L.(2015). Educational Activity of National Research Universities as a Basis for Integration of Science, Education and Industry in Regional Research and Educational Complexes. *Procedia - Social and Behavioral Sciences*, 214: 619- 627.

Lakshmi, V. (2019). Mixed methods research in education, International journal of higher education and research,9(1): 281-290.

Lavalle, C. & Nicolas, V .(2017). *Peru and its new challenge in higher education: Towards a research university*. Retrieved from https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0182631

Mahmoud, H .(2022) .A proposed vision for developing research obstacles Scientific in the Arab world. Arab *Journal of Measurement and Evaluation,3*(5): 207-224

Mahmoud, W. (2020). Requirements for Transformation of an Egyptian Research University in Light of the Sustainable Development Goals (A Proposed Conception). Fayoum *University Journal for Educational and Psychological Sciences, 14*(11): 802- 912.

Makhlouf , H. & Al-Bahbah, N. (2023) .Obstacles to scientific research from the point of view of faculty members at the Faculty of Arts in Al-Asmaria Islamic University .*Journal of Physical Education and Other Sciences*, *10*: 462-480.

Mbula, E. Tijssen, R., Wallace, M. & McLean, R. (2020). *Transforming Research Excellence New Ideas from the Global South*. Cape Town, South Africa: African Minds.

Mehrabani, S.E & Mohamad, N.A. (2011). The Role Training Activities and Knowledge Sharing in the Relationship Between Leadership Development and Organizational Effectiveness. *International Conference on Sociality and Organizational Effectiveness*, *11*: 164-180.

Mohammed, H., Abduldayim, M., Nasif, M. & Serna, G. (2020). Excellence Initiatives and Management Reform: The Case of World-Class Research Universities in Japan And Possibility of Making Use Of Them In Egypt. *Journal of the Faculty of Education in Benha, 122*(4): 295-332.

Naayrat, R. & Aliwi, M. (2021). Scientific research in Palestine: reality, challenges, strategies. Journal *of Human and Society Sciences, 3*(10):85-118.

Nguyen ,N., Pham L., Cox, S., Bui ,N.(2021). Departmental leadership Departmental leadership and peer pressure on academic research and peer pressure on academic research performance at universities in emerging countries: An empirical study in Vietnam. *Journal of University Teaching and Learning Practice, 18*(6): 117-134.

https://doi.org/10.20428/ajqahe.v15i53.2109

Nikolov, R. & Ilieva ,S.(2007). *Building a Research University Ecosystem: The Case of Software Engineering Education at Sofia University*.Bulgaria: Sofiia University.

Ozen, G., Yaman, M., & Acar, G. (2012). Determination of the employment status of graduates of recreation department. *The online journal of recreation and sport,1*(2): 6-23

Ravi, R. & Manthan, J. (2022). Factors Affecting Technology Transfer and Commercialization of University Research in India: a Cross-sectional Study. *Journal of the Knowledge Economy*: 787 -803.

Ross, R., Reeves, J., Scarpinato, K. & Pelham, M .(2019). Success Factors for University Research Development Offices and Activities. Journal of Research Administration*, 50* (3): 107-124

Shraf, S., Yunus, M & Al-Ghabashi, M. (2022). Supporting scientific research at Menoufia University and ways to improve it . *Journal of the Faculty of Education,3*(37): 190-232.

The Saudi Intellectual Property Authority. (2021). *Intellectual Property Policy Guide for Universities and Research Centres* :Kingdom of Saudi Arabia.

Vasiliev, A. (2022). Designing the University Competitiveness Management System: Functions, Levels, Objects, *International Journal of Instruction,15*(4): 609-1694. Retrieved from https://www.e iji.net/dosyalar/iji_2022_4_56.pdf