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A proposed Conceptualization to Identify Alternatives to Fund Educational Scientific Research "Analytical study"

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Abstract

The current study aims to identify modern sources of funding for scientific research in the light of the contemporary world, to come out of them with a vision that supports and enhances the financing of educational scientific research in creative, innovative and pioneering ways, and to achieve the hoped for in improvement, development, change, solving problems and current crises, supporting scientific research and investing it in rational decision-making, through analysis And reviewing previous research and studies and educational literature that dealt with the sources of funding for educational scientific research in order to ensure an integrated remedial vision to meet the challenges of funding educational scientific research. The current study differs from previous studies in the study methodology, as the current study relies on the analysis of educational literature that circulated sources of funding for educational scientific research through the descriptive analytical and developmental approach and considering the results of previous studies. Alternatives to funding educational scientific research to face the obstacles and problems of funding sources for educational scientific research. The study presents a set of recommendations, the most important of which is the need to expand business incubators and link research projects with local community institutions to support and market them.
Keywords: (finance, educational scientific research)

1. Introduction

Scientific research has significant importance, a distinguished position, and a fundamental role in the contemporary world, as it is one of the most important indicators for classifying nations into developed and developing. Those who peruse the huge budgets and allocations in the developed countries for scientific research realize its importance, role, and vitality in the development, progress, and growth of nations. It is considered one of the key features of the era; The era of competitiveness, globalization and rapid growth in which countries compete and struggle to achieve their major goals.

Therefore, scientific research has become one of the tools that enable countries to develop very quickly, and to overcome the problems they face by organized scientific methods. The countries that hold the reins of science and knowledge are today in control of the affairs of the contemporary world. The fact that scientific research not only contributes to overcoming the difficulties faced by humanity, whether political, social, economic or environmental, nor to the civilizational renewal practiced by nations to achieve their practical reality that achieves their

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happiness and well-being, nor because it allows a new understanding of the past , including Contribute to bringing about a new shift for the present, and a forward-looking vision for the future; Rather , it is because it achieves a precedent in knowledge and technology, and turns it into cognitive and technological applications that dominate the world, and it also contributes to raising rates Production, improving its quality, and introducing modern methods and techniques into activities Productivity and administrative and service sectors, leading to its development and increasing its contribution to the national income (Haidar, 2015).

The issue of funding scientific research is an important part of a more general and comprehensive issue, which is the issue of research expenses and costs, and this issue has expanded and increased in importance in recent times. The latter, as it constitutes one of the most important challenges facing universities in developing their scientific research production, so those concerned must develop proposals to visualize funding alternatives to benefit from the inputs Tunnels on research and its outputs. In terms of interest in research funding, the progress of the scientific renaissance depends on institutions The academy and universities are the main center of scientific activity Spending on scientific studies and research is one of the great challenges facing think tanks and universities, as the function of scientific research is one of the basic functions in universities, and one of the mainstays that achieve scientific reputation and prestige and improve the university's image at the local, regional and international levels , and as a result, The universities of developed countries have taken care of this job and given it its due attention , and allocate large financial funds to cover its expenses.

The rapid progress in human knowledge was undoubtedly the result of a growing research effort that accumulated through the ages. This progress was accompanied by the development of scientific research methodology and techniques. If the advanced countries have given scientific research great attention, it is because they realized that the greatness of nations lies in the scientific, intellectual and behavioral capabilities of their children, which are Fields of scientific research have the most prominent role in strengthening its pillar, achieving its development and prosperity, and consequently maintaining its international standing (Abeer, 2019) .

And educational scientific research and its basics and applied curricula, is a basic axis of human resource development with its various aspirations and objectives. One of the reasons for the development witnessed by our contemporary world is that societies are constantly aware of the need to review their systems and development plans to ensure their progress in a consistent and balanced manner with the movement of civilized construction. Educational scientific research is also a new proposition for an old problem, or a new awareness of a new problem related to a specific circumstance with the phenomenon or event of interest. It is also the creation of a new method and tools and their use within the framework of a reference knowledge approach that allows the collection of sufficient data and evidence that can be interpreted and interpreted, and to clarify the relationships between the independent and dependent variables prevalent among the elements of the problem, with the aim of arriving at building a functional diagnosis that allows effective intervention in the appropriate time and place , given that conducting the research Education often aims to produce new knowledge, whether this knowledge is of a diagnostic nature of reality or of an applied nature.

Given the importance of this topic and the great importance of scientific and educational research and its role in solving current problems, which are numerous and evolving, It needs to provide proposed solutions to contemporary crises , and the way to leadership nationally and

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globally, and being one of the most important pillars of investment in the knowledge economy and the development of intellectual capital; This study came to provide a visualization Suggestion To determine alternatives to fund search Scientific The educational role and its importance , and given the lack of funding for educational scientific research, the lack of networks and databases , and the lack of awareness of the importance of meaningful educational scientific research that must address a situation, innovation or solution to a problem , It sheds light on many of the current crises that we are experiencing today and have affected the leading position drawn by most educational policies and are unable to achieve them due to the lack of scientific research seeking to address them and the development of effective and appropriate mechanisms for their application in order to reach the knowledge society.

Study problem:

The issue of funding scientific research is one of the most prominent current issues that directly affect the development and development of scientific research or not (Ayachi and Bin Hussein, 2017) , Those who follow the reality of universities and their research centers will find that there is a lack of spending on educational scientific research, and if there are budgets allocated for scientific research, they are not sufficient, and most of them may be allocated to scientific research related to technical and applied sciences because some believe that they are more important than educational scientific research. ! Although educational scientific research seeks to use scientific methods and methods to reach facts new, contribute to the growth of human knowledge Reviving old topics and achieving them scientifically, and then developing them, and allowing a new understanding of the past for the sake of a fresh start to the present and a forward-looking vision for the future.

Therefore, the most important thing that hinders conducting scientific and educational research is the problems it suffers in spending on this research, whether they are problems related to aspects. (Administrative, legislative, or physical), and this is confirmed by the results of a number of Arab studies, including the study (Hamid; Al-Hamdani, 2021), a study (Al- Ariqi, 2019), and a study (Kitlu; Buhais, 2019), and others. The material aspects are among the most obstacles to scientific research, due to the low percentage of spending on it, and the scarcity of tools The resources and means that assist in the completion of educational scientific research. And through that, there was a need to produce a vision A proposal that supports and enhances the financing of educational scientific research in creative, innovative, and pioneering ways and achieves the desired in improvement, development, and change, solving current problems and crises, supporting educational scientific research, and investing it in rational decision-making.

Hence the main question of the study: What is the perception? the proposal to determine alternatives to fund search Scientific Educational?

The following sub-questions emerge from it:

1. What are the sources of funding for educational scientific research?
2. What she alternatives proposed as sources to fund search Scientific educational?

Study objectives:

The current study aims to suggest Imagine determining alternatives to fund search Scientific educational and that is through:

1. Find out what are the most important sources of funding for educational scientific research.
2. Determining the proposed alternatives for financing educational scientific research.

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Importance of the study

The importance of the study is divided into two axes :

- The importance of the study from a practical and applied point of view :
  - It is hoped that this study will benefit policy makers by investing sources of funding for educational scientific research.
  - It is hoped that the university leaders and faculty members in universities will benefit from the recommendations of this study to play their role in developing the capital that supports educational scientific research, and to encourage students and researchers in the fields of educational sciences to pursue meaningful educational scientific research.
- The importance of the study from the theoretical and intellectual point of view:
  - It is hoped that this study will represent a scientific addition to its subject, which is an urgent need in our time and one of the literatures that libraries lack or almost non-existent, according to the researcher 's knowledge.
  - It is hoped that this study will provide scientific and research horizons for other researchers to delve into such a field to bring about the desired development and add new knowledge to educational thought and scientific research to bring about the positive change required about issues of funding educational scientific research.

Study method:

The two researchers used the descriptive, analytical, developmental approach. The analytical method was used by analyzing the theoretical literature and studies related to the subject of the study. To form a theory about the specialized ideas and concepts in the field of study, and to review the relevant previous studies, and to answer the questions of the study, then the two researchers used the developmental approach by presenting a proposed conception to identify alternatives for funding educational scientific research, and in the light of which a number of recommendations were made to activate funding sources Educational scientific research.

Terminology of study

that the researcher now knows as follows:

Finance (language): It came in the middle dictionary: “finance” money: what an individual or group owns of belongings, trade offers or money, and collecting money, and it is said: financed: money grew for him, and so-and-so financed money: he took it as a possession. (The Intermediate Dictionary, 2011).

Funding (idiom): a set of financial resources allocated to educational institutions for specific goals and their management with high efficiency. It is also defined as: the formation of capital to carry out a specific work, to achieve a desired result, which may be economic, social, or cultural, or it may be inclusive of these symptoms (Rifai, 2008). It is a set of means , methods and tools that we use to manage the project to obtain the necessary funds to cover its investment activities On this basis, the determination of the sources of financing for the project depends on the available sources in the markets and the environment The money that exists _ _ Fi Ha (Mir Ghani, 2018).

Scientific research: It is an organized process of investigation by following specific scientific methods and approaches to scientific facts to verify their validity and modify or add new ones. Hammadi and Qasimi (2021, 50) defined it as an organized attempt aimed at increasing the facts and information that a person knows and expanding his circle of knowledge to be more able to adapt to his environment and control it in all fields of life and all its problems.

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Funding for scientific research is the sum of the financial resources allocated to all types of education from the state's general budget, or some other source Such as student fees or local and foreign aid and donations and managing them effectively to achieve the goals of higher education (Keshroud and Migaweeb, 2021).

search educational science is effort scientific Organizer and directed for a purpose reach to me Solution for problems educational that form the operation educational as a system in its input and its outputs and its operations (Abeer, 2019). points identification else to me that search educational is " one fields search Scientific different, and he Seek judging name it to me Identify on me the problems educational and find solutions Occasion Her" (Al- Ariki, 2019).

Looking at the previous definitions, researcher Tan summarized the procedural definition of educational scientific research funding as: Research For new sources that increase the financial allocations in the educational scientific research budget.

The importance of scientific research

Our need for scientific research, studies and scientific research is increasing day by day. Science is in a frantic race to obtain the largest possible amount of accurate knowledge derived from science that ensures comfort and well-being for humans and ensures superiority over others. The primary function of scientific research is to advance knowledge to provide better conditions for human survival, security, and well-being. Scientific research, with its methods and procedures, is essential in any field of knowledge. Familiarity with the different scientific research methods and the rules to be followed, starting from defining the problem of scientific research and describing it procedurally, passing through the selection of a specific methodology for collecting data related to it, ending with data analysis, and drawing conclusions, became important in all theoretical and applied sciences.

(Saeeda and Miloud , 2021) believes that scientific research for any country is its real capital, which determines its strength and position among countries, as it has become one of the necessities of contemporary life and a basic requirement for the development of society and the achievement of comprehensive development, and a state cannot be established without Scientific research, even if it is insignificant, by providing a suitable environment and encouraging the conduct of scientific research.

The importance of digital scientific research is highlighted by the increasing dependence of countries on it, realizing the extent of the importance of scientific research in achieving progress and development of civilization and its continuity, solving problems, and providing solutions that contribute to improvement and development. In addressing the problems facing public and private institutions alike. The researcher needs scientific research to reach (Al-Nuaimi, 2015):

- Knowledge advances to provide better conditions for human survival, security, and well-being.
- Devising a new way to solve a problem.
- Reviving some old topics and achieving them in an accurate and flawless scientific investigation.
- Discover facts that no researcher had before.
- A new understanding of the past and a new search for the present.

Scientific research carried out by universities, higher education institutions and research centers plays an essential role in the research and development system in any country that seeks

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advancement and progress, which requires close cooperation between universities and various institutions to determine the capabilities of scientific and technical universities on the one hand, and to identify the needs of various community institutions. In general, and productive institutions, on the other hand, with the aim of defining clear research paths that can contribute to the advancement and advancement of their societies and coordinating among them to achieve common goals and objectives that are beneficial and beneficial to all relevant parties .
and performed (Assaad; Mahmoud; and Qabekli, 2021). A study that aimed to identify the reality of spending on scientific research and development as one of the main and important inputs for scientific research and development in the Arab world in general and in Syria in particular, and to show the extent to which this spending contributed to increasing the rate of economic growth during the period 2005-2017 according to the availability of data, and it adopted the descriptive approach By reviewing the literature dealing with the subject of scientific research and based on the available data on the reality of expenditures on scientific research provided by the reports of international organizations such as ESCWA and UNESCO The data of the United Nations and the World Bank and the study of the relationship between expenditure on scientific research and GDP as an indicator for measuring economic growth. Statistical analysis indicates the weak relationship between spending on scientific research and GDP, and thus the rate of economic growth, due to the low levels of spending on scientific research in most Arab countries compared to international levels, where the percentage of spending on scientific research does not exceed (1%) , as the largest percentage of scientific research funding sources in most Arab countries depend on government funding, which is not aimed at profit by its nature, which is reflected in the financial return for scientific research outputs.

From this standpoint, universities in developed countries have given research and development programs special attention, by providing the appropriate scientific environment in which scientific research can grow and flourish, and allocated funds for this purpose to provide laboratory devices and scientific equipment that researchers need in their different specialties, and it is no wonder In this, scientific research is one of the most important basic functions of universities. Without scientific research, the university becomes just an educational school for science and knowledge produced by others, and not a center for scientific creativity, knowledge development, enrichment, dissemination, and seeking to employ it to solve the various problems facing society.

Funding for educational scientific research

Funding educational scientific research is an issue based on the extent to which financial support is provided and made available upon request to educational researchers to implement the various aspects of activities and functions for scientific research in accordance with its policy and achieve its goals and the goals of its society. Considering educational scientific research that is supervised by governments and sets laws and policies that these institutions must follow, the process of financial financing for them is linked to several factors, the most important of which are the following:

1- The ability of governments to provide the necessary funding for scientific research.
2- The general policy followed by those countries towards scientific research.
3- The function or role played by scientific research in different countries.
4- The extent of the public's conviction in scientific research and its effectiveness.

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5- The current economic situation in the country in general and the COVID-19 pandemic.
6- The extent to which scientific research contributes to bringing about change, development, leadership, and qualitative shifts in societies.

Linking funding only to the educational role of the university means limited funding, and the inability to find alternative funding sources for government funding for universities, which constitutes a very large percentage in third world countries, due to the universities' inability to cover the financial cost due to the limited resources they have, which depend on the sources Traditional, and based on the foregoing, the functions of the university may be determined based on the extent to which funding is provided. Whenever the sources of funding are limited and traditional, the university tends to traditional jobs related to education, for example, and governments must determine the priorities of higher education and university jobs accurately to determine the funding needed for it and its various sources.

And conducted (Sheikh Khalil , 2014) , a study aimed at identifying the degree of funding for scientific research in Palestinian universities from the point of view of faculty members, and its relationship to the volume of scientific production of faculty members in them from their point of view, and also aimed to know the type of relationship between the average estimates of faculty members in universities The degree of funding for scientific research, and the volume of scientific production are attributed to the study variables: (gender, years of service, academic degree, college, university). To achieve the objectives of the study, the researcher followed the descriptive-analytical approach, and the study community consisted of all the faculty members in the Palestinian universities (Islamic, Al-Aqsa and Al-Azhar) in the governorates of Gaza, and those with the degree of assistant professor or above. Three, two questionnaires were also designed, the first on the reality of funding scientific research in Palestinian universities, and one of the most important results of the study is that the relative weight of the degree of funding scientific research in Palestinian universities from the point of view of the faculty members in the fields of the first questionnaire came with a small degree of funding, and the fields were Respectively: the field of indirect funding occurred, followed by the field of direct funding, and finally external funding. The study made several recommendations, the most important of which are: Allocating a budget for scientific research by the government to Palestinian universities. And activating the role of the private sector through (factories - municipalities - private companies) in supporting scientific research in Palestinian universities. And work to establish an Islamic endowment, the proceeds of which will go to support scientific research. And adopting the concept of a productive university through consultations and projects, the proceeds of which go to support scientific research.

There may be confusion between spending on higher education on the one hand and financing higher education on the other. As for the funding of scientific research, it was previously indicated, which is concerned with methods of saving money and other costs that are required for education and other resources and functions that provide the expenses, while spending on education is defined as: that the government allocates to the education sector from its annual budget and national income.

And conducted (Kashroud, 2021), a study aimed at shedding light on the importance of scientific funding in achieving sustainable development, as well as the pioneering experiments in that and trying to bring it down on Algeria. Like Algeria, which still suffers from a lack of funding, and this is reflected in sustainable development.

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Hence, the two researchers see the interest of researchers, educators and policy makers in the continuous interest and constant search to search for sources of funding for scientific research other than traditional sources because they realize the importance of scientific research in the renaissance and development of nations. And the researcher has benefited from previous studies in formulating theoretical literature, in addition to the way they dealt with the subject and benefited from the results of previous studies in providing recommendations and suggestions and comparing and strengthening them with the results of this study. By reviewing the theoretical literature and previous studies related to the subject of the study; It turns out that this study agreed with previous studies on the importance of funding scientific research and the need to increase financial allocations, embrace researchers, and implement their ideas. This study was characterized by being - within the limits of the researcher Tan 's knowledge - which dealt with the sources of funding for scientific research in an analytical way considering the challenges of the times, and presented alternatives suggested as sources to fund search Scientific educational.

Research funding challenges

The researchers were interested in studying the challenges and obstacles to funding scientific research, and one of the studies concerned with this was a study and conducted (Al- Qahtani, 2014) , a study aimed at identifying the perceptions of faculty members about the reality, nature and obstacles of alternatives to funding scientific research in the humanities and social faculties of Kuwait University. Using the Delphi method and with the participation of a sample of two experts in the subject of the study, the study concluded several results, the most important of which are: (a) The reality of external research funding is characterized by the confidence granted to the researcher, specifically the confidence related to financial aspects; (b) that most financing alternatives exist in non-Arabic speaking countries; (C) The existence of institutional obstacles, mostly from within Kuwait University, and personal obstacles that prevent the activation of funding alternatives, if any, outside Kuwait University. Considering these results, the study came out with recommendations related to the topic of the study.

study (Chabani; Lushan; and Bouguerra, 2021), which aimed to clarify one of the challenges faced by higher education and scientific research in the Arab world, which is the problem of funding and its lack of diversity. Represented in endowment deposits, by highlighting and defining the role that investment in endowment deposits can play in achieving the development of education and scientific research in the Arab countries, especially considering the great successes witnessed by some Western countries that relied on them, such as the United Kingdom and the United States of America. So that endowment deposits are a basic financing method for its educational and research institutions, especially if we consider the investment process in education and scientific research as an investment in human capital, which is no less important than investment in physical capital.

study (Manna , 2021) , aimed at examining the problems, difficulties, obstacles and dangers facing scientific research in the Arab world in particular, because research in some foreign countries do not suffer from what it suffers from, especially in America and Europe, because the vision in it is clear and the goal is clear , purpose specific, and search supported. And the Arab world was not satisfied with not supporting scientific research, or keeping silent about it, but rather it started to put inhibitors and oceans, one after the other, in front of it, and did not try to benefit from the research, because it looks at it with an inferior look, but rather backwards that its outputs are not measurable, and there is no benefit in it. T male; Because it is a

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rumination of the thought of others, or it is a compilation, a classification, or an investigation, or it deals with an issue that it expands, or shortens it, especially in human studies, but if it is in scientific studies, its fate is omission and neglect, and therefore these dilemmas represent challenges and confrontations for scientific research. May, who may stand helpless in front of it, which causes him to decline and decay, wastes his scientific value, and loses its contents, and executes his goals, and therefore he has no research methodology except his name. This study has adopted two things, The first: personal experience, extensive experience, and insightful vision, through the scientific research that I wrote, supervised, helped with, or contributed to providing opinions and suggestions, or its wisdom to refereed scientific sessions in the Arab world and abroad. As for the other, it benefited from some relevant sources and references. relevance.

he conducted (Al-Silwi , 2021) , a study aimed at identifying the challenges and problems facing Yemeni government universities in general, and the University of Al-Bayda in particular, and to what extent these challenges and problems affected the status and position of the university on the one hand, and on the other hand, identifying the most important factors and requirements that It can contribute to the transformation of Al-Bayda University into a productive university that depends on itself and enhances its sustainability, in order to become a model for other Yemeni government universities to follow.

Principles and policies for controlling scientific research funding

The reality indicates that government funding forms the basis for funding scientific research in most Arab countries, while other sources remain tributary and non-essential, such as student fees, self-financing sources, and external funding. And that the search for other sources of funding within a set of principles and governing policies, such as diversifying sources of funding for educational scientific research, evaluating each funding means considering the opportunities (opportunities), which it offers and the risks (Threats). Which entails defining funding priorities considering realistic application, setting an ethical constitution to judge the funding process, and reviewing it, providing mechanisms to correct inefficiency and waste, and emphasizing the need for harmony between officials in ministries and higher education institutions to control the funding process and ensure its smooth flow. It is classified into three levels (Autumn; Al-Ameen, 2019):

Finance Short -term: This type of financing is considered an ongoing problem for projects that depend on managing its efficacy and activities; It is always searching for its sources, and it usually consists of projects Small or medium-sized, and the funding sources are Main for finance Short -term business credit and bank credit.

Medium-term financing: used to finance a permanent need or projects in progress Which takes a number of years, so the loan is repaid through the cash flows that are generated during this number of years.

Long-term financing: payable after a period of more than one year, Therefore, it is recommended to spend it on fixed assets, and from here it appears to us that it is important big for finance the long term, which often determines the direction and speed of growth of enterprises.

Scientific Research Funding Sources

Funding in any society is linked to the economic system, and there are many sources of funding depending on the approved financing policies and prevailing social trends. The amount of investment in education is affected by the societal view of its importance, and in light of the

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presence of the market mechanism that controls the management of the economy, and given the increasing financial cost borne by higher education institutions as a result The appeal for higher education by the masses with the limited possibilities available, it has become necessary to search for complementary sources to support the budgets of universities and colleges, and funding sources can be one of the following:

First, government revenue :(government resources) In this system, the state is the main financier, and the allocations for this system are paid from tax revenues, and such a system may have a significant negative aspect, which is the lack of internal power to ensure the efficient use of financial resources. These sources can be direct or indirect as follows:

1- The annual (budget) grant that is allocated for scientific research in the general budget, and they are certain amounts allocated by the state to each university to support its various activities.
2- The university's share of customs fees and additional fees, as a certain percentage of those fees and additional fees are allocated to scientific research each year by the state.

Second: self-resources (Self Sources) These sources are among the capabilities of scientific research to supplement financial resources through its components and internal activities. It can be said that there are two main sources for this type of funding: university fees and parallel fees.

Third: Secondary Sources: (Other Sources of Funding) These sources include the following

1- Education taxes and fees: a percentage of income taxes, land tax, car fees, etc., which the state imposes on individuals and various institutions (Badr, 2000).
2- Local and external loans: The source of local loans is local banks and financial institutions, and often borrowing is done locally to cover the obligations incurred by universities as a result of their construction and buildings to complete their infrastructure, or these loans may be provided directly to students who are unable to finance their education themselves, such as the poor student fund. External loans are often sourced from the World Bank or the Islamic Development Bank, and the purpose of these loans is to complete the infrastructure of some universities (Al-Samaki, 2004).
3- Premiums for private education, evening education, or parallel program: These installments pay for students' learning in private educational institutions (private universities and private schools), and the premiums that universities obtain by opening the door for applying for evening studies in exchange for certain amounts, or the premiums obtained by universities from Students who are not accepted into public universities within the higher program, as they enroll in the parallel program, which is one of the sources that provide the university with large sums of money.
4- Self-financing sources: that is, financing some educational institutions themselves through their resources derived from the sale of their own products and services they provide. For example, Yarmouk University invested its halls on Saturdays by renting them to Amman Arab University to give lectures in them in previous years.
5- Local sources, bodies, and donations: It is represented in the contribution of municipalities, parents, and the local community in financing the university, such as the parents' contribution to building a college, providing land, or providing in-kind and cash donations. He conducted (Wasif, 2021), a study entitled Endowment of Money and its Role in the Development of Scientific Research, King Abdulaziz Al Saud University as

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a model, relying on the advantage of flexibility enjoyed by the endowment system and the ability of its provisions for diligence and development. In the theoretical section, I was exposed to the general provisions of the endowment and focused on the endowment of money to explain its provisions and advantages, then I tried to link between scientific research and the requirements for its development, especially the funding requirement according to a triple equation, the result of which is that development requires strategic thinking and financing, taking into account the dependence of funding on strategic planning. On the practical side, the study chose the Scientific Endowment at King Abdulaziz Al Saud University, based on the data published on the huge website of King Abdulaziz University, and adopted a method of comparison between the results of the scientific endowment over ten years, divided into three stages. The study concluded that the cash endowment can contribute to development processes at all levels established in the development equation, and that it is possible to adopt the developmental model adopted in the scientific endowment because it relies on one of the theories such as kaizen and balanced scorecards in the organization of institutions.

6- University investment funds: Some universities became aware of their financial surplus and established an investment fund using the surplus funds available to them, and these funds were invested in multiple ways such as the central bank, or by buying and selling stocks and bonds that are traded in the financial markets, and contributing to the capital of some Industrial, commercial and financial companies, as well as in the purchase of land and real estate, and the establishment and leasing of commercial complexes. (Mostafa, 2021) conducted a study aimed at developing the university education funding system in Egypt considering the performance-based funding formula, by presenting a proposed vision for how to implement the funding formula considering the experiences of some developed countries in this context, and in line with the cultural context of society. Egyptian. Use the descriptive approach. He presented a proposed vision that would develop the Egyptian university education financing system considering the performance-based financing formula, based on an analysis of research literature, an analysis of leading experiences in this field, and a diagnosis of the Egyptian reality, its conditions, and capabilities.

7- Foreign Grants and Aid: These grants and aid are unconditional and are granted by international and regional bodies , religious bodies, or Health , or private institutions and companies such as institutions and businessmen, and these grants and assistance can be provided in the form of in-kind grants such as equipping laboratories and halls, or in the form of cash, as is the case in supporting scientific research and others.

Scientific Research Funding Sources Suggested alternatives :

Finally, after extrapolating and analyzing previous studies, researcher Tan concluded basic proposals for developing and supporting scientific research funding, which are the marketing of research and technology services. Scientific studies confirm that marketing the applications of research results is the entry point and the indispensable starting point for the development of the movement of progress and development on its various axes, because this type of activity is less valuable without the presence of a beneficiary. This is within the following implementation mechanisms:

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1- Determining the actual needs of targeted educational research that develops remedial plans and proposed programs for the most important urgent educational problems and issues in cooperation with the Ministry of Education and Scientific Research to comply with its actual and targeted needs, and work on conducting scientific research in accordance with these needs to provide all information and data related to these problems and mechanisms Solve them and treat them through the results of those researches, and access to rational and effective decisions in addressing educational issues that hinder the development process, provided that this body sponsors the financing of these researches in terms of providing transportation, data processing expenses, printing and the like.
2- Establishing integrated databases on research, studies, completed projects, their most important achievements, economic feasibility, and the extent to which they can be applied, and then listing marketable projects and studies.
3- Establishing a database that includes research, production and manufacturing centers and bodies, as well as the currently available scientific and laboratory human resources.
4- activation Mechanisms the work modern administrative and technically as well Mechanisms e modern in publishing and management savings for costs and more Production of targeted educational scientific research,
5- scale down Costs by integrating Activities search and translation with Activities training, especially if done within agreements cooperation with seekers Universities and students Studies upper concerned with specializations Institutions and those willing in training low the cost Opposite Share in business.
6- conclusion agreements Spread subscriber with Role publishing to lower costs process publishing and benefit from its existence logistic, and Investigation some gains joint venture, which may invest in financing new educational scientific research.
7- Forming specialized promotional missions and marketing training for the scientific knowledge and technology available to the university, with interest in the media, advertising on research projects, and introducing the activities of the university to all visual, audio and print media, with holding scientific symposia and workshops to which those concerned with the field of work of the symposium or workshop from scientific, executive and beneficiary bodies are invited. Scientific studies confirm that marketing the applications of research results is the indispensable entry point and starting point for developing the movement of progress and development on its various axes within the framework of improving performance, competition, and innovation, which imposes the need to expedite the marketing work programs for science and technology activities.
8- Expand the organization of multilateral workshops with the involvement of international organizations and bodies that finance scientific activities and projects in line with developments in the international arena.
9- Encouraging scientific research, creativity and innovation and participating in international competitions and patents for global leadership.
10- Expanding business incubators, embracing scientists, reducing brain drain, motivating them, and providing them with a stream of comfort. And they waged (Hindi; Abu Shusha; Muhammad, 2021). A study entitled The Role of Research Excellence Centers in Developing Research Performance in Egyptian Universities. The Centers of Research Excellence is a university unit for qualitative and innovative research in a specific field, which enhances capabilities, supports research programs, advances them in that

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specialization, and carries out activities that support scientific and research fields. The appropriate funding, and works on scientific research, support and training in various disciplines, and the revival of many initiatives through its researchers, and relies on a network of institutions cooperating with each other in different qualitative disciplines, and on company boards the centers of research excellence work to achieve the competitiveness of university education, through research projects and partnerships. The centers of research excellence aim to urge universities to achieve high levels of success in the field of distinguished scientific research, development, innovation, and learning, and to support and finance some distinctive research trends. Existing or newly established, according to the principle of competition among them.

11- Benefiting from the experiences and successes of countries in the knowledge economy, investing intellectual capital, benefiting from researchers and thinkers, and embracing their ideas.

Results:

Through critical reading of reports and research and reviewing previous studies, in addition to websites related to the topic, researcher Tan came to answer the study's questions as follows:

The first question: What are the sources of funding for educational scientific research? Most sources of funding for scientific research in the Arab countries depend on what is allocated to them by the government as an operational or development budget, followed by university fees and supporting gifts, in addition to self-financing such as educational support programs, service and advisory offices, and royalties. immovable funds.

The second question: What are the proposed alternatives as sources of funding for educational scientific research? By studying the experiences of some countries and their success stories in establishing projects that constituted an alternative source of funding, different and diverse models were identified in this context, such as adopting the concept of a productive university (experience houses, investment funds, business incubators, knowledge gardens), educational coupons , chairs scientific research, In addition to encouraging the idea of a scientific endowment , as well as all that was mentioned when presenting sources finance search Scientific Modern as suggested alternatives , and given that reliance on fruitful funding alternatives supports the university's independence and helps it achieve its goals, develop its projects and achieve competitive advantage.

Study recommendations: Among the most important recommendations of the researcher are the following:

- The enactment of laws and legislation necessary to activate many aspects of good that are now suspended (endowment , alms , zakat, donations) in support of scientific research and the establishment of business incubators, and university facilities, and changing people’s view that reward and reward are obtained in them as it happens in building mosques and schools for memorizing the Holy Qur’an.
- Spreading the spirit of competition between businesspeople and women, which our society abounds with benevolent ones in donating to educational institutions bearing their names and working to overcome all obstacles that stand in the way of achieving this.
- Working on finding appropriate and practical mechanisms for the participation of banks and companies in contributing to the support of scientific research and educational

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institutions, especially technical and professional institutions, because they are often the most beneficiaries of its outputs, with a fixed annual donation in return for the kindness to the state, which gave it many facilities, exemptions and grants at one time, until it reached What I have reached today in terms of wealth, and great profits.

- Activating the role of the official sponsor (companies of commercial establishments) for the activities and events of educational, scientific, and cultural institutions, because this is a rationalization of expenditures.
- Work on increasing advertisements and publicity in bulletins and brochures, and even scientific journals, because of the financial returns that are not easy.
- Work on training the faculty member on all developments in technology and communication, and in the field of specialization, so that he can contribute to better community service, and thus achieve his satisfaction.
- Adopting the idea of a productive university by exploiting the energies present in it and establishing some investment projects that generate a self-financial return, such as expanding the farms of faculties of agriculture and veterinary medicine, and faculties of fine arts.
- Work to communicate and strengthen relations with national and international bodies and institutions and businesspeople to secure financial or material support.
- Renting its buildings such as conference halls, squares and stadiums, and advertising them outside the walls of universities.
- Establishing houses of expertise, consulting offices and professional services for the community outside the walls of universities.

Conclusion

It was noted from the above the interest of much research in the concept of funding in all its forms, because of its clear impact on the achievement of scientific research for its goals, the most important of which is preparing the qualified individual to serve himself and his country, considering this as a successful investment in human capital. The researcher dealt with multiple funding sources for research institutions Al-Alamy also revealed many challenges in the financing process, the most important of which are the rapid and successive technological developments, the increasing number of students enrolled in universities, the high cost of the university student, in addition to the lack of effective investment in the existing human and material capabilities, which required attention to meet these challenges, and work effectively to find Alternative non-traditional funding sources that depend on factors related to society, including social, political and economic ones, and each university must choose the appropriate formula for its circumstances .

References:

Abeer, Samati (2019). The role of scientific research in encouraging innovation in the higher education sector - a case study of the University of Biskra, Master's thesis, University of Mohamed Khider, Biskra, Algeria.

Al-Areeqi, Amal Abdel-Wahhab Ahmed, (2019). Obstacles to scientific research as perceived by the teaching staff at Taiz University and ways to overcome them, Dar Al-Nuzm Journal, Vol. (4), p. (1): 65-95.

Advanced Research & Studies Journal

Al-Babtain, Amani Ahmed Abdel Aziz (2019). Diversifying the sources of the education financing system in the Kingdom of Saudi Arabia to keep pace with the aspirations of Vision 2030 in the light of the American experience." The Specialized International Educational Journal, Vol. (8), p. (9): pp. 55-69.

Al-Qahtani, A., (2014). Perceptions of faculty members in humanities and social faculties of funding alternatives for scientific research outside Kuwait University: A study using the Delphi method (in Arabic). Journal of Human Sciences.

Asaad, Bassam and Mahmoud, Bassam and Qabqli, Ibtihal (2021). Spending on scientific research and its impact on economic growth in the Arab world, Journal of Hama University, Vol. (4), p. (9): 127-143.

Ayachi, A., and bin Hussein, Y., (2017). The problem of funding scientific research in Algeria (in Arabic). Al-Sarraj Journal of Education and Community Issues at El-Wadi University. 1(4),45-68.

El Shawarby, Amira; Al-Qasabi, Rashid; Maher, Mohammed (2021). The productive university is an introduction to improving the academic and professional performance of faculty members at Port Said University, Journal of the College of Education. Port Said, Vol. (34), p. (14): 594-636.

El-Silwi, Mahmoud (2021). Al-Bayda University adopts a productive university model to diversify and develop funding sources, develop its services and enhance its sustainability, Al-Bayda University Journal, Vol. (3), p. (2): 558-586.

Hindi, A., and Abu Shusha, M., and Mohamed, H., (2021). The role of centres of research excellence in developing research performance in Egyptian universities (in Arabic). Journal of Young Researchers in Educational Sciences for Postgraduate Studies in Sohag. 15(9), 567-609.

Humaid, Mohammed; Hamdani, Raja (2021). Alternatives to Funding Scientific Research from the Point of View of Academic Experts in Yemeni Universities, Journal of Educational and Psychological Sciences, Vol. (5), p. (42): pp. 1-20.

Kachroud, M., and Mikaweeb, M., (2021). The role of funding scientific research in sustainable development: some international experiences and their application to Algeria (in Arabic). Journal of Studies in Economics and Business Administration. 4(1), 290-308.

Mustafa, O., (2021). A proposed vision for developing the university education financing system in Egypt considering the performance-based financing formula (in Arabic). Journal of Scientific Research in Education, Ain Shams University. 22(3), 71-165.

Odeh, Bashir Hadi; Al-Jawarin, Adnan Farhan (2016). Obstacles to scientific research and the requirements for its advancement in the Arab countries, Al-Ghari Journal of Economic and Administrative Sciences, Vol. (14), p. (38): pp. 35-65.

Sheikh, K., and Safinaz K., (2014). The reality of funding scientific research in Palestinian universities and its relationship to the scientific production of its faculty members (in Arabic). Master Thesis. Islamic University of Gaza.

Wasif, I., (2021). Endowment of money and its role in the development of scientific research, King Abdulaziz Al Saud University as a model (in Arabic). Unpublished doctoral thesis. Valley University.