

UNIVERSITY SCIENTIFIC RESEARCH AND ITS RELATIONSHIP WITH SOCIAL AND ECONOMIC DEVELOPMENT IN ARAB SOCIETY (YEMEN AS A MODEL)

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Abstract

The current study aims to investigate the importance of university scientific research in the service of social and economic development in Arab society in general and Yemeni society in particular during the period from 2015-2022. The approach adopted in this study was the descriptive and analytical approach to data and information, which constituted a major source of this study, as well as some statistics issued by Arab and Yemeni educational institutions. The volume of scientific production (published research) of Arab universities and research centers amounted to approximately 410,549 until 2021. while the scientific production of Sana'a University since its establishment until 2022, amounted to 9250 research papers and scientific papers. It is worth mentioning that the scientific research published by Sana'a University during the period 2015-2022 which is the period of conducting this study amounted to approximately 2,400 research papers and scientific papers. Research and academic promotions for university faculty members and research centers. In addition to what was accomplished in the research of Master's and Doctoral theses, which were discussed in graduate studies at the University of Sana'a during the study period, 1616 Master and Doctoral theses for the programs available for postgraduate studies within the Sana'a University.

Keywords: University Research, Social Development, Economic Development.

INTRODUCTION

Scientific research in general, and university scientific research in particular, is considered one of the important tools for the development of societies, as it tackles the issues and concerns of the surrounding society. The best evidence of this is confirmed by the experiences of developed countries, which rely on scientific research in various fields of life and link it directly to the needs of society.

In Arab countries, they are trying hard to pay attention to scientific research, but they are still unable to produce knowledge to meet their development needs. Despite their possession of enormous wealth, they are unable to benefit from them in developing scientific research and developing society.

The challenges facing many countries of the world have multiplied in all directions, whether those countries are developed or developing countries, and the most important of these challenges are the social and economic challenges as common challenges among those countries, but they differ from time to time.

University is the most important scientific institution concerned with science, knowledge, and scientific research in all fields of life, given its importance and its social and economic status in the lives of various nations and peoples, due to its efforts in improving the levels of scientific research and facing the difficulties and challenges facing different societies, whether rich or poor, but these challenges need to a strong will to solve it.

What is agreed upon by the majority of writers and researchers is that the most advanced and successful countries in facing social and economic challenges are those countries that have taken scientific research as a means and tool in solving their problems, catching up with the developed world, and excelling in front of their peers from similar countries.

Here, the researcher talks about the many challenges facing university scientific research in Yemeni society, including social and economic challenges that need realistic and logical successful solutions at present, and the role of scientific research in facing them.

He also elaborates on the reality of university scientific research during the study period and what the Yemeni society is exposed to in light of inter-conflicts and wars that have been going on for years, the extent of scientific research ability and the proportionality of the material and human capabilities enjoyed by the Yemeni society, and the size of the risks that may befall the future of generations and hinder the achievement of their desired aspirations and the solution of their future problems.

Problem of the Study

University scientific research is the main driver of development, and one of the main tasks of universities is to produce and develop knowledge to serve development in society. As a result of research, modern countries have been able to achieve the desired development and lay the foundations for comprehensive development. The problem is represented in the low level of scientific research in Yemeni society, to its lowest level due to the lack of the necessary capabilities, because scientific research needs basic elements, for example:

- Availability of the will of states and governments regarding the importance of scientific research.
- Availability of the necessary budgets and the suitability of the environment to conduct scientific research.
- Availability of qualified researchers who can carry out this research.

Although scientific research is the main pillar for the advancement and progress of society, and the improvement of social, economic, and cultural conditions, it needs the availability of good resources that enable it to develop the means and tools of scientific research, so that it can solve the problems that society suffers from in scientific ways.

Significance of the Study

This study is significant as it follows the shortcomings in the growth and development of scientific research encountering the problems that society suffers from. Universities have a pivotal and extremely important role as they represent the focal point in the development of scientific research with their material and human capabilities and specialists in various fields and they have sufficient ability to contribute to solving the problems that society suffers from, and thanks to scientific research, the man was able to shift from the stage of primitive agriculture to the stage of advanced agriculture, where he was able to invent modern agricultural machines and expand quantitatively and qualitatively in increasing the area of agricultural lands, and achieve food security for society and the transition to the industrial revolution.

And as we discussed earlier about the significance of university scientific research in the development of societies that rely on scientific research to solve their problems, we do not forget the role of scientific research in the development of science and scientific and technological knowledge, and we transform societies from the era of the industrial revolution to the technological (digital) revolution that brought about a huge qualitative shift in human life.

Methodology of the Study

This study is based on following the analytical descriptive approach in reading and tracking previous studies and research that have been presented in this study, as well as analyzing data and statistics supporting the information presented.

Concepts of the Study

In the beginning, it is necessary to define scientific research, as there are many definitions of scientific research, although they differ in some words and expressions, in the end, they agree in content, including that scientific research is an organized intellectual process carried out by the researcher to treat a specific issue according to certain procedures and conditions, or it is an investigation fact about a specific issue by following scientific methods called research methods [1].

Some people define scientific research as the search for new knowledge in the field of development in scientific research using scientific means and methods based on technical progress. The correct application of knowledge and its translation into lived reality, and therefore all of science, scientific research, and technical development constitute key links to bring about a comprehensive development renaissance, for any social or economic development ... etc [2], [3]. Science explains phenomena and is considered a basic basis for scientific research, and scientific research is a basic basis for technical development, providing final solutions to social and economic problems and striving for society towards advancement and progress, and this harmony between science, technology, and society is today a new trend that is being applied worldwide, especially in developed countries [4], [5]. Accordingly, scientific research is the studied method that leads to solving most of the problems, using

inventorying all the phenomena and social and economic variables associated with all the issues of society.

Limitations of the Study

The temporal and spatial limitations of the study were determined, as the study period was determined between 2015 - 2022, and the place of study was the Yemeni society.

Scientific research and society

When talking about university scientific research and society, we are not here to search for the relationships that link scientific research, society, and the university. In all cases, the relationships are strong and interdependent, and one cannot be separated from the other. As a research institution of the first order, there can be no university without interest in scientific research, and seeking to touch the issues of the surrounding society. Through it, it provides various services in various aspects of social, economic, political, and cultural life.....etc.

A university is a scientific platform that undertakes the tasks of disseminating, developing, and benefiting from knowledge. The university is one of the main laboratories in the production of human resources and investment in human capital in the dissemination of science and specialized knowledge, and an advanced center for civilizational development in various aspects of life, through scientific and cultural forums for scientists, researchers, and thinkers.

The university should also study and analyze the problems of society and analyze its social, economic, cultural, and political issues on an ongoing basis, and follow up the scientific development in a way that serves the issues of society and meets the ever-increasing needs of people, and the university will not be able to achieve any success except through serious interest in scientific research in general and technical. In particular, striving towards development by pursuing new knowledge that touches reality, and solving community issues based on previous knowledge and scientific libraries in ways based on scientific research that touches on community issues and the surrounding social environment and avoiding social problems before they occur so as not to cause a deterioration in social conditions and society to lag behind existing civilization in our contemporary world.

The role of the university and scientific research in development in Yemeni society:

Most studies and researchers on the role of the university and scientific research in Yemeni society agree that the university does not play the role required of it since its establishment in adopting social and economic research that serves development in Yemeni society as required. With scientific research and researchers, providing the necessary tools, and establishing a broad base for scientific research?

By establishing modern laboratories, providing new references and specialized periodicals, caring for the human cadre of researchers, and establishing the infrastructure and laboratory that establishes a pioneering scientific research institution to serve the issues of Yemeni society. Its functions are to meet the needs of society and its role has become a marginal role, and the university and scientific research represents a burden on society and a new challenge from the obstacles to development [6].

As we mentioned previously, the absence of the university's influential research role in the field of social and economic development, caused the university and scientific research to lose its most important vital functions in serving the surrounding community, active and unproductive, and which aggravated the situation is the absence of its role in shaping a society aware of the importance of scientific research and enlightening society with the positive and effective role in the need to pay attention to scientific research and develop its paths in various directions, and considering scientific research as a necessity of the current era and directing all sectors of society to pay attention to it and benefit from the experiences of others in this field and stimulate the movement of intellectual exchange between research institutions.

Instead of the issue under study being to reveal the relationship between the university and its social environment, the relationship has become part of revealing the priorities that the university should carry out as part of its functions [7].

Naturally, there is a relationship between the university and scientific research, as is the case in the existence of a relationship between the university, scientific research, and society. Therefore scientific research is one of the main functions of the university, and there must be a relationship between scientific research and society, but unfortunately it seems that this relationship is almost non-existent under the current circumstances and conditions in which this study is being conducted and with the increasing opening of some new universities in the governorates that have the human and material capabilities to establish these universities on the assumption that all these universities aim to spread education and support scientific research as stated in the laws establishing these universities and the issuance of their internal regulations organizing such educational and research work.

The lack of support and the absence of a clear vision for scientific research programs also suggests a lack of relations between universities, scientific research, and the social environment, outside the framework of the time of science and scientific research that we live in at present.

The future of scientific research:

The university plays an important role in the lives of nations and peoples, in their economic and social development. The university's mission lies in three basic functions:

- a. sharing science and knowledge among universities.
- b. Adopting a key role in scientific research and the development of science and knowledge.
- c. Community service by participating in public awareness, providing social services, and consulting in various aspects of development, especially the human aspect, which is no less important than the material aspect [8].

However, attention to the level of scientific research, the future generations, and their needs, as scientific research has not witnessed the slightest interest from the state and the government as it is a strong basis for progress and advancement and the pursuit of benefiting from the experiences of developed countries that devote all their efforts and energies to accelerate scientific and technical progress for their people, in various scientific fields such as technical

sciences, communications, media....etc [7], [9]. This vision needs to translate intentions and hopes into facts on the ground, benefit from the experiences of others, and achieve progress in the field of scientific research, which requires the reality of Yemeni society, and in various aspects of life, social, economic, political, developmental, etc.

At the end of the last century, the total global spending on scientific research amounted to 1.25% of the global gross product, which amounted to one trillion US dollars [10], and in 1997, the total spending on scientific research sectors amounted to approximately 500 billion US dollars. In the industrialized countries, the volume of spending amounted to approximately 3%, while in the United States, the percentage of spending in the scientific research sector amounted to 120 billion dollars as 2.4%, it is one of the highest rates of spending in the world in the scientific research and development sector.

One of the results of that generous spending on scientific research was positive results in the reality of the lives of those societies, which we notice in the technological development in all fields, which could not reach the results it reached except thanks to its contact with the reality of the needs of society, whether those researches are carried out by the university scientific or applied, it has been able to manufacture those positive variables based on the results of those scientific researches and has achieved its most important goals in serving the various issues of society.

Therefore, the reality experienced by those countries of sophistication and progress was the result of tremendous and accelerated efforts and generous expenditures, which are being made to achieve the best results for scientific research seeking to develop the life of society, and the solution of all its social and economic issues. As for the Arab countries, including our country, Yemen, our position on scientific research is that of a viewer of what others accomplish, who is unable to provide anything due to the lack of capabilities and scarcity of expenditures allocated for researching our issues and problems.

Likewise, we are still unable to absorb the results of scientific research carried out in developed countries and benefit from them, and we will remain a consumer market for the products of those developed countries in the productive and technological fields. This situation applies to all Arab countries, which are still unable to mere maintenance products imported from industrialized countries, which made it an open market for the products of those countries, however, some Arab countries have recently realized the seriousness of the situation, and have tried to change their reality and reduce the technological gap between them and the developed countries, but the results provided by these universities are under expectations and their path is tortuous and deviating from the right path [11], [12].

Table 1: shows the number of public and private Arab universities for the year 2022

No.	Name of the country	public universities	Private Universities	Total
1	Egypt	27	39	66
2	Jordan	10	19	48
3	Morocco	29	-	29
4	Saudi Arabia	30	12	42
5	Algeria	66	-	66
6	Tunisia	13	-	13
7	Syria	18	13	31
8	Yemen	11	17	28
9	Kuwait	25	-	25
10	UAE	5	-	5
11	Iraq	35	45	80
12	Palestine	5	-	5
13	Libya	32	-	32
14	Somalia	1	17	18
15	Sudan	34	20	54
16	Bahrain	2	15	17
17	Qatar	1	4	5
Total		344	201	545

Observed from the previous table, it is noted that the deficiency is not in the scarcity of universities nor the limited number of researchers, as there are considerable numbers of researchers estimated to be over one hundred thousand, both full-time and part-time. Moreover, numerous research centers are dispersed throughout all Arab countries, and an almost countless number of specialized colleges enroll nearly a thousand students. Despite the substantial number of scientific publications, which range into the thousands and originate from diverse Arab states, the bulk of those studies focuses primarily on agricultural research, followed closely by basic and fundamental research in the natural sciences. Social sciences follow next, whereas industrial sciences lag behind in terms of completed research [13], [14], even though they significantly require advancement. Interestingly enough, the sheer volume of research conducted in Arab countries surpasses what certain economically developed countries, such as South Korea, accomplish by a factor of 30%. As the number of researches that have been completed is equivalent to the research published by China and India together, and some Arab countries have seen a doubling of research publications. It has achieved and has reached 200%, including Kuwait and Saudi Arabia, and these are among the positives calculated for Arab scientific research.

We see that what is wrong with Arab scientific research is that the huge amount of research is considered unproductive and concerned with quantity and not with quality, and does not meet the social reality and the needs of society, In addition, the fact that theoretical research is many, but it is empty of content and repetitive and far from reality and not needed by society and does not touch its concerns and its problems are mostly, and many of those researches were not for developmental or economic purposes, especially university research, which is mostly for academic promotions only, and when comparing the rates of spending on scientific research between Arab countries, including Yemen and developed countries, there is no comparison for

the vast difference. For example, when comparing what is spent by only one developed country, such as Germany, with a population of around 100 million people. With what is spent by the Arab countries combined, which has a population of approximately three hundred and fifty million, Germany spends \$55 billion, while the Arab countries spend only \$1 billion [15], meaning that Germany spends on scientific research and technological development equivalent to 55, what the Arab countries spend, and in return, this means that scientific spending at the individual level in Germany reaches 690 dollars, while the level of spending at the level of the Arab individual reaches 3.3 dollars Only [16].

Arab Scientific Research Achievements

Some Arab countries witnessed modest achievements in the field of scientific research, especially the countries of the Gulf Cooperation Council, despite the outrageous wealth of these countries, as these countries excelled in what Egypt produces despite the huge difference in population, as the population of the Gulf Cooperation Council countries represents 5% of the population of the Arab world, while the population of Egypt represents 20% of the population in the Arab world, and often that research in the theoretical sciences is greater than the applied and technical sciences [17]. It also does not serve the social environment of research institutions, but rather serves scientific promotions and academic promotions for those in charge of it only.

Some Arab countries are drawing up national policies to review their research strategies and developing national plans to develop scientific research, such as Saudi Arabia, Egypt, Jordan and Tunisia, where Saudi Arabia ranks first with (171) patents, followed by Egypt (77) and Kuwait (52), and it gradually decreases until it reaches Yemen is last on the list [18].

Arab research centers such as the Egyptian National Research Center, the Kuwaiti Research Center, and the Unity Center for Arab Studies in Lebanon adopt scientific research and support researchers.

The modesty of industrial research in the Arab countries, except for what is rare such as sugar factories in Sudan and Syria, and the means of transferring some technological sciences, in extracting sugar from sugar cane.

Standards for spending on scientific research

What is meant by spending on scientific research is the approved budgets in the government and private sectors, and what is spent by for-profit institutions and companies that invest their money in the field of scientific research, for profitable purposes and achieving economic benefits. Scientific research degrees can be classified as follows:

- Less than 1% of the national product, the performance of scientific research is very poor.
- From 1-1.6%, the level is medium.
- More than 1.6%, the performance is good to serve development.
- More than 2% is considered performance at the required level. [19].

Among the important criteria for the development of scientific research in any society, the following must be available:

- Allocating sufficient budgets for the establishment of research facilities with advanced specifications, and without the availability of sufficient funds for operation, there will be no scientific research at all. When comparing developed countries and Arab countries in developing research, the criterion for the volume of spending between industrialized countries and Arab countries is uneven, as statistics indicate the disproportion between the population of both sides, with the amount of spending on scientific research and the number of scientists and researchers.
- The criterion for subscribing to the World Wide Web for scientific research is to know all that is new in the field of the rapid development of science and knowledge.
- The criterion for the modesty of scientific publishing in Arab countries is compared to the Israeli enemy, as UNESCO indicates that scientific publishing in Arab countries does not reach one-sixth of the hypothetical share.
- Registration of new patents, as statistics indicate that the rate of patent registration in the Arab world is very low, as one patent is registered for every ten million people, while in Israel the patent registration reaches 102 inventions per million people.
- Creating superiority over one's enemies due to the fear of the state of confrontation between the Arabs and their enemies, as well as the pursuit of technological superiority, and ensuring the achievement of victory, it is necessary to develop scientific research in various military, and civil aspects.

Basics of scientific research

- Among the necessary things that should be available in scientific research are the following:
- Originality and innovation.
- The ability to present problems.
- The ability to formulate hypotheses.
- Scientific honesty and scientific documentation.
- Compliance with formal aspects.
- References and data should be up-to-date.
- The integrity of the sample and the depth of analysis of the results [20].

Scientific research characteristics

- Adopting an organized approach to finding solutions to scientific or social needs and getting to the bottom of the problem.
- That the researcher relies on facts and successive steps that contribute to solving the problem.
- Follow the appropriate inductive, analytical, or experimental method...etc.
- Scientific research stems from reality and ends with realizing its observations and applying its results.
- Validity of the research results and their qualitative and quantitative sufficiency.
- The searches are repeatable and produce either similar results that support them, or produce new results that correct the previous results [20].

Scientific research in Yemeni universities

When talking about the reality of scientific research in Yemeni universities, it does not differ much from the reality of scientific research in other Arab countries, given that scientific research in Yemen is part of the Arab system, if not the least caring and concerned, despite the availability of human cadres, but the basic structures for establishing highly efficient and scientifically productive scientific research is not available, in contrast to the possession of some Arab countries of huge material wealth that enables them to achieve development and progress and to establish advanced research centers and provide them with the best equipment and technologies, but it is considered wasted money to spend that wealth on consuming what others produce, just as the low rate of spending on scientific research makes it unable to produce knowledge and deal with it properly. Operational budgets for educational and research institutions [21].

In addition, the spending rate does not achieve development because the spending rate reaches 1%, and this rate leads to the lack of infrastructure and the decline of productive scientific production leading to social development.

Some studies indicate that six Arab countries whose scientific production does not constitute any number on the International Platform for Scientific Publishing (ICI), namely (Yemen, Bahrain, Mauritania, Djibouti, Somalia, and Comoros) even though these countries possess a large number of universities and research centers have many research institutions and a large number of researchers, and the people of those countries look forward to increasing scientific research and increasing their scientific production, but the obstacles to scientific research in those countries are many, including the lack of resources allocated for scientific research, weak interest in scientific research from the government side, the absence of encouraging incentives for researchers, the escalation of conflict situations, the spread of conflicts, and the continuation of economic, political and cultural crises. and the lack of scientific journals and scientific publishing vessels, and not linking them to similar journals in developed countries, the lack of publication in Arabic, and the monopoly of some international scientific institutions to publish

in English [21]. In addition, what is produced by the aforementioned countries does not constitute any significant number because it does not reach 1% of global scientific production.

Table 2: of the number of research conducted in the field of postgraduate studies at Sana'a University during the period from 2015-2022

No	Years College	15/16	17/16	18/17	19/18	20/19	21/20	22/21	Total
1	Literature	72	57	41	95	65	54	31	415
2	Education	99	85	84	54	63	57	27	469
3	Medicine	39	37	47	14	20	34	7	198
4	Pharmacy	3	-	-	-	-	2	-	5
5	Engineering	3	2	2	2	-	1	-	10
6	Sciences	21	20	13	17	17	15	8	111
7	Agriculture	8	5	8	1	3	5	2	31
8	Commerce	11	4	6	3	6	10	1	41
9	Media	3	-	-	3	2	6	4	18
10	Faculty Of Sharia And Law	22	15	32	13	9	6	6	103
11	Languages	6	7	6	6	32	16	2	69
12	Population Studies	2	2	2	4	6	4	-	20
13	Water and Environment Centre	1	1	1	-	4	2	-	9
14	Computer	-	-	1	9	6	14	5	35
15	Gender	-	-	2	-	13	3	-	18
16	Physical Education	-	-	5	2	8	10	2	27
17	Dentist	-	-	-	6	14	8	5	33
18	Petroleum	-	-	-	-	-	2	2	4
Total		290	335	245	229	268	249	102	1718

Book of general statistics of the Vice Presidency of the University for Postgraduate Studies and Scientific Research in Sana'a during the period from 2015-2020.

In table (2), it is noted that the outputs of scientific research at Sana'a University, for example, were limited to what postgraduate students do, in Master's and Doctoral courses during the period from 2015 to 2022, and the results were as follows:

The scientific research that was discussed for academic degrees (Master's and Ph.D.). The College of Arts, where the number of researchers reached (415 research) from various departments, and all those studies and research are in the theoretical aspect, followed by the College of Sharia and Law, where the number of researchers reached (103 research) in Sharia and legal sciences.

As for the scientific disciplines, the College of Medicine and Health Sciences was the first in the number of scientific research that was discussed, as the number of research reached (198 research), followed by the College of Science with (111 research) from the various departments of the scientific colleges.

The outcome of the rest of the other scientific colleges, respectively, was the Faculty of Computer 35 research, the College of Dentistry 33 research, the College of Agriculture 31 research, and the College of Petroleum only 4 research.

Although these colleges opened their doors for postgraduate studies recently, the number of graduates is quite significant compared to the old colleges, in which postgraduate programs were opened a long time ago. Those faculties, and their moral support for researchers, had positive results, prompting many researchers to complete their research, and this is clear evidence that scientific research is in dire need of material and moral support, encouragement of researchers, and the creation of appropriate climates in the various faculties of the university and its specialized research centers.

Table 3: specifies the number of registered researchers (Master + Ph.D.) in the field of postgraduate studies at Sana'a University during the period from 2015-2022

No	Years College	15/16	17/16	18/17	19/18	20/19	21/20	22/21	Total
1	Literature	71	49	65	77	65	125	58	510
2	Education	112	133	82	75	133	175	43	753
3	Medicine	30	58	15	24	30	24	3	184
4	Pharmacy	-	-	-	-	1	-	-	1
5	Engineering	-	1	2	-	-	-	1	4
6	Sciences	22	19	10	18	18	56	12	155
7	Agriculture	7	2	2	3	47	35	13	109
8	Commerce	70	3	54	9	5	12	2	155
9	Media	1	1	6	3	8	6	6	31
10	Faculty Of Sharia And Law	42	41	7	8	6	25	15	144
11	Languages	6	41	8	26	12	26	13	132
12	Population Studies	14	1	-	8	2	6	1	32
13	Water and Environment Centre	-	-	-	4	1	-	-	5
14	Computer	1	14	-	4	17	14	25	75
15	Gender	2	-	6	4	5	5	19	61
16	Physical Education	6	2	15	15	8	13	9	68
17	Dentist	-	-	9	25	14	4	2	54
18	Petroleum	-	-	-	-	7	10	8	25
	Translation Center	-	-	-	-	-	4	-	4
	Center for Migration and Refugees	-	-	-	-	-	1	-	1
Total		384	365	281	303	379	541	230	2483

Book of general statistics for the Vice Presidency of the University for Postgraduate Studies and Scientific Research in Sana'a during the period from 2015-2022

It is also noted in the table (3) that the number of applicants to register their research in postgraduate studies in various scientific and theoretical disciplines is still uneven from year to year, up and down between the various faculties, depending on the conditions of the social reality experienced by the Yemeni society during the period of conflicts, armed conflicts and the unjust siege on the people. Yemen, which negatively affected the various aspects of life,

especially educational life. Through the previous table, we find that applicants for educational sciences rank first, with many (753 male and female researchers) who are registered for scientific research for master's and doctoral degrees, followed by literary majors, where the number of registered students reached (510 male and female researchers), followed by 155 commercial and accounting majors, then 144 legal majors, followed by 132 linguistic majors, followed by 68 physical education studies during the study period, as well as research registered in the university's research centers, as follows:

Gender 61 research, Population Studies Center 32 research, Translation and Community Service Center 4 research, and finally the Migration and Refugee Center only one research.

As for the scientific colleges, the number of applicants for the registration of scientific research decreases to approximately 75% of the applicants on the theoretical side, as the number of those registered for research in medical specializations reached 125 research, followed by 155 research in scientific disciplines, then agricultural specializations with 109 research, and in the field of computers 75 research. Followed by dentistry with 54 research, then oil with 25 research, and this number is very small compared to the population.

Unfortunately, the engineering and technical scientific disciplines did not receive attention and encouragement, as the numbers in them are very small, as the number of registered researchers in the College of Pharmacy reached 9 researchers, and in the College of Engineering only 4 researchers, during the research period. These researches are not completed researches that represent Scientific balance in university scientific research. This statistic was included to know the extent to which the university continues to continue the scientific research journey with the same efficiency as it was in previous years, or whether the war and the long conflict affected the level of turnout and scientific achievements due to this university.

The researcher believes that the introduction of statistics on the numbers of applicants for master's and doctoral degrees to compare with the numbers of graduates and to measure the proportionality between registered and completed research as a nucleus for scientific research and the correlation of the numbers of applicants as inputs to scientific research with its outputs, and the efforts of the concerned authorities to develop university scientific research.

Findings and Recommendations

The suffering of researchers from the lack of academic freedom for universities and researchers due to government interference in the affairs of science and knowledge.

- Absence of sponsorship by the state and its affiliated institutions for scientific research in general, university scientific research in particular, and specialized research centers.
- Lack of information and modern means to assist in obtaining information correctly and scientifically.
- Acute shortage of laboratory equipment, laboratories, and modern libraries.
- Poor material capabilities and lack of infrastructure, including buildings designated for scientific research, and lack of specialized human competencies.

- Poor information systems and lack of networking with international research institutions.
- The large shortage in the number of libraries, the lack of local and foreign scientific periodicals, and the difficulty of obtaining the information currently available due to the conditions the country suffers from.
- The most important thing in all of the above is that there is no specific budget for reviving university scientific research, and if there is a small part that does not meet the minimum requirements for scientific research, and above all, it is transferred to other exchange items that are not related to scientific research.
- The study recommends the need for adequate care for researchers and granting them sufficient academic freedom to conduct scientific research work following international rules and principles.
- Providing the necessary funds and budgets for the success of scientific research programs in various disciplines, moving the stagnation and decline in which we live, and achieving development in the agricultural and industrial fields.
- Providing research centers equipped with the equipment and capabilities necessary to develop scientific research work, especially industrial sciences.
- Establishing consultation and partnership relations with Arab and foreign research centers and institutions to benefit from the development taking place in developed countries.
- Support creators and inventors and register their inventions.
- Scientific research and scientific posts have declined due to the circumstances the country is going through.

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