Management and Leadership Skills Development in Research Centre's in Light of Functional Entrance and Economic Importance (Case Study: Biotechnology Research Center in Tripoli- Libya)

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تنمية مهارات الادارة والقيادة في المراكز البحثية في ضوء المدخل الوظيفي والأهمية الاقتصادية (دراسة حالة مركز بحوث التقنيات الحيوية طرابلس – ليبيا)

المستخلص:

تناولت هذه الدراسة تنمية مهارات الادارة والقيادة في المراكز البحثية، وكان مركز بحوث التقنيات الحيوية في الطويشه دراسة حالة لهذا الدراسة حيث سلطت الدراسة الضوء علي مفهوم الادارة والقيادة وكيف يتم تنمية مهارات كلا منهم وخصوصا في المراكز البحثية ، الذي يعتبر الركن المهم وذلك لان الموظفين والباحثين في المراكز البحثية يعتبرون العمود الفقري لهذا المراكز، وبالتالي ما مدي مهارات هؤلاء وقدرتهم علي الابداع الذي يخدم في المحصلة الانتاج الفكري والعلمي للمراكز البحثية، في حين ان الاهمية الاقتصادية لبرامج تنمية المهارات الادارية والقيادية تعتبر العمود الحيوي لتنفيذ هذا البرامج حيث لا يخفي علي أحد أن القيام بأي برامج ودورات تدريبة لكوادر المؤسسات والمصالح الحكومية والمراكز البحثية يجب ان يعتمد علي مقدار ما تحقق تلك المؤسسات من العوائد الاقتصادية والمادية من تنفيذ تلك الدورات، وما مدي تطوير الكوادر الوظيفية المستهدفة بهذا الدورات والبرامج التدريبية وايضا مدي تطوير الانتاج العلمي لهؤلاء الموظفين حيث أن القيام باي برنامج تدريبي يعتمد بصورة او اخرة علي الجدوى الاقتصادية لتنفيذ تلك الدورات والبرامج التدريبية، ولقد خلصت هذا الدراسة الي وجود تباين ملحوظ بين كوادر المراكز البحثية وخصوصيا في مستوي الادارة والمراكز القيادية من حيث المهارات والقدرة علي الادارة والتفكير والابداع ووجود ازمة كبيرة في اعداد الموظفين وتنمية مهارات الادارة والقيادة لديهم، وتتجلي ذلك المشكلة في ازمة في الفكر والابداع بالإضافة الي ازمة في مخرجات التعليم وايضا حدوث خطا كبير عند اختيار الكوادر الفنية للمراكز القيادية حيث في معظم الاحيان تختار من اصحاب الشهادات العليا في نفس تخصص المركز البحثي ويتم تنسي ان المراكز الادارية العليا تحتاج الي أتقان مهنة الادارة والتخطيط والتفكير العلمي بالإضافة الي ان معظم المراكز البحثية يقومون بتنفيذ برامج لرفع كفاءة العاملين بدون ما تكون لديهم فكرة علي اهمية هذا البرامج من الناحية الاقتصادية وايضا العائد المادي من هذا البرامج.

الكلمات الافتتاحية: *الإدارة – القيادة – المراكز البحثية – المدخل الوظيفي – الأهمية الاقتصادية.*

Abstract:

This study focused on the development of management and leadership skills in research centers, the Center for Biotechnology Research in Twesha as a case study. The study emphasized the concept of management and leadership and how the skills of each are developed, particularly in research centers, which is regarded as an important aspect because research center employees and researchers are considered the backbone of these centers, and therefore, what is the extent of their skills and ability to innovate that serve in the intellectual and scientific production of the centers? This study concluded that there is a significant disparity between research center staff, especially at the level of management and leadership centers, in terms of skills, ability to manage, think and innovate, and that there is a significant crisis in the number of employees and the development of management and leadership skills for them. This problem manifests itself in a crisis of thought and creativity, and in the educational outputs, as well as the occurrence of a major mistake when selecting technical staff for leadership centers, where most research centers choose from among the holders of higher degrees in the same specialization as the research center and forget that the higher administrative centers must master the professions of management, planning, and scientific thinking. In addition, most research centers implement programs to raise the efficiency of workers without having an idea of the importance of these programs from the point of view of the economy.

Keywords: *Management, Leadership, Research Centers, Economic Importance, Libya.*

1.General research framework:

Introduction:

"Administrative leadership is the third function of management after planning and organization, and leadership is defined as the activity exercised by someone to influence people and make them cooperate to achieve a goal, and thus, leadership is an expression of the convergence and interaction of three main components: authority, power, and capability (Abu scath, 1987). Many governments of Arab countries are not interested in developing and assigning appropriate financial allocations within their budgets to develop and raise their competencies. According to the World Bank's 2019 Development Report, technical progress and increased production are linked to investment in highly efficient human resources as well as the quality of the economic environment (World Bank, 2019; Verspoor,1994). However, the distribution of technical and scientific capabilities is uneven among the countries of the world, where the third world, of which most Arab countries are part of, represents about 13% of the number of scientists and researchers around the world, and the percentage of what is spent in these countries on scientific research and development is not more than 4-5% of what is spent in the world, while only 3% of the national income of those countries is spent in the field of scientific research(Al-Hadini, 2001). Therefore, it can be noted that the lack of interest of developing countries in general and the Arab countries in particular in the development of human capacities, especially scientific research and support this field, also to the lack of capabilities of the ministries of education, whether public education or higher education in the majority of Arab countries, which reflected significantly on Arab educational institutions.

It does not hide from anyone at the moment the quality of the outputs of the Arab educational institutions, where most of these outputs represented by students with degrees, whether bachelor's degree or even holders of higher degrees are characterized by the large quantity and poor quality and efficiency of the graduates, where in many cases these outputs need to raise efficiency, As a result, workplaces, including research centers, often bear the big role in raising staff efficiency through courses and efficiency programs, which cost the centers a lot of money, Therefore, programs to develop management and leadership skills are among the programs of great economic importance in which cooperation between different research centers and state institutions should take place, as well as cooperation between countries, in order to prepare leaders who will be responsible in the coming stages for raising the efficiency of thinking, scientific creativity and managing research centers. From this entrance, most research centers have tended to develop staff since the beginning of their work through various programs to raise efficiency, To get distinguished leaders and develop management skills and raise the efficiency of the outputs of research centers, which leads to raising the seriousness of continuing to finance these centers and provide appropriate material support where research centers provide important economic support due to the sophistication and value of their outputs in various outlets of knowledge and science.

Many of the outputs of university and higher education in most Arab countries do not raise to the terms of quality to work in research centers as many of the employees of these centers need to be rise skills, so it is important to improve programs to develop management and leadership skills and make them economically viable in order to work to raise the outputs of research centers.

The significance of this study is that it provides qualitative development of the quality of management and leadership skills development programs by evaluating existing programs and working on fundamental changes in the structure of training courses based on increasing the efficiency of their quality and the economic feasibility of their returns.

This study aims to provide and prepare permanent training programs for the staff and researchers of these research centers, reflected by the economic feasibility of developing functional, academic, and administrative skills, as well as the development of logical and creative scientific thinking skills for a large number of leaders and administrators in all disciplines, and the development of research center staff in the field of scientific research and ethics. Also, reveal the weaknesses in the management leadership skills of research center managers and staff, and work to implement programs with specific requirements that increase the efficiency of the staff, in addition to understanding the impact of training programs to raise efficiency at the level of leadership and management skills for research center staff.

2. The theoretical aspect

1. 2The concept and importance of leadership and management:

Leadership is the process of inspiring individuals to do their best in order to achieve the desired results, and it is about guiding individuals in the right direction, getting their commitment, motivating them to achieve the best performance rates in their jobs and there are two key roles for leaders to take care of: getting the job done, and achieving communication with their associates (Galbon & Khaled, 2010), The efficiency of leadership and management skills in the career dimension in general and between leaders

and managers in particular is one of the most important fundamentals in excellent management leadership in research centers, where raising efficiency and developing of these skills ultimately leads to obtaining high quality outputs from research centers (Bouhez & Marzouki, 2009) which is undeniably one of the most important topics in management thought, as evidenced by the massive amount of studies, That's why it's difficult to find a unified definition of administrative leadership. one of the most important is "leadership is a relationship of authority, power and the ability to control leaders in their relationships with subordinates, or employees," and there are those who define it as "someone's activity to influence people and make them cooperate to achieve a goal", or, "It's the leader's activity to enable his subordinates to do their job effectively (Abu scath, 1987).

Leadership has derived its significance from the human element, which has become the focus of attention in research centers and the most important resource that contribute to achieving its goals, and in order to ensure that the human competencies it has to achieve its goals are maximized, thus guaranteed their durability and continuity, and had to provide effective management leadership capable of influencing the behavior of employees and pushed to do their work efficiently and effectively, therefore, there is an urgent need to develop training programs to raise the leadership skills of managers and administrative staff(Galbon, Khaled, 2010).

2.2 The relationship of human development with developing and raising the efficiency of the functional staff in research centers:

Human development is the main fundament in the establishment of staff and the main step to develop and raise the efficiency of the educational and human capacities of peoples, particularly in developed countries where they rely on the number of programs implemented by governments to raise their efficiency, This, in turn, leads to behavioral changes and improvement of intellectual creativity, as well as the efficiency of educational and functional performance of citizens, and thus the preparation of future generations of youth who in addition to holding higher degrees, have a clear vision in order to raise their creative efficiency and ability to produce(Al Toumi, 2009) Human resources development specialists combine a strong relationship between economic and social human development, human skill availability, and increased staff efficiency programs (Galbon, Khaled, 2010). Many specialists see the availability of skills as one of the many factors motivating investment, which is the cornerstone of any development process, whereas others believe that the dynamics of development, investment in training, and competency-raising are the primary drivers for the human resources development, in fact the relationship between the two parties is complex and influential, in both directions. As the labor market's demand for skills grows, so does the number of people seeking training (Al Toumi, 2009) ,therefore, human development is the process of developing people's capacities and expertise in order to help them achieve a higher level of income and production, in addition to enjoying a healthy and happy life, human development is used as an indicator of societies' progress, and shows the difference between the individual income and well-being by measuring the rate of effort made in the income, health and education fields (Arab British Academy for Higher Education,2014).

Human development is concerned with people living the kind of life they prefer and choosing the right career, thereby raising staff capabilities, and, as a result, human

development programs impact citizens, including employees receiving technical expertise that contributes to the elevation of Arabic education outcomes, which eventually leads to work to provide staff trained and ready to work in research centers that reduce costs, increase efficiency, and develop leadership and management skills (Al Qasimi, 2001). The Arab countries' reliance on human development programs leads to the development of employees' skills and works directly to obtain staff for research centers that are equipped to engage in work and maintain the role of research centers by providing training courses to develop their employees, and giving them the opportunity to learn about new and rapid technical developments in their fields.

3. The importance of developing programs to improve management and leadership skills in research centers:

The development and modernization of research centers to become more capable of training qualified staff able to meet the different needs of the humanities, engineering and applied sciences, equipped with academic and applied qualifications obtained from universities in addition to training and technical qualifications, and raising the efficiency of recipients from programs and training courses in research centers, provides qualified staff to work and produce high quality scientific outputs that are consistent with the current and future needs of the community (Jordanian Ministry of Higher Education and Scientific Research, 2003). In order to do so, we must work on a distinctive strategy for the development of research center programs and courses that take into account the community's current and future needs in line with development goals and plans, with the aim of graduating qualified staff able to meet these needs (Hussein and Nashwan, 2004), by formulating policies and identifying the measures required to provide an appropriate environment for this development, this strategy must rely on achieving the following objectives through its themes, whether in terms of admission criteria to research centers, training programs, the foundations of accreditation and quality control, or encouraging creativity in scientific research:

1. Developing qualified and specialized human staff in diverse fields of knowledge to meet the needs of research centers.
2. Providing an academic, psychological and social environment that encourages creativity, excellence, innovation and the development of talent.
3. Promoting, funding, and improving scientific research, particularly applied research aimed at serving and developing the community.
4. Establish a close institutional link between research centers on one hand and higher education institutions on the other, in order to leverage qualified energies in these institutions in the development of research centers through consultancy and applied scientific research.
5. Improving the quality and efficiency of research center alignment with societal needs by establishing standards and foundations for accreditation and quality control that are applied to all research centers and conform to international standards.
6. Keeping up with ICT developments and incorporate them into management and academic programs in terms of content and training methods.
7. Taking into account the economics of research centers in the training and rehabilitation sector, such as securing necessary funding and developing appropriate mechanisms for the distribution and efficient use of available financial resources based on priorities.

4. The economic importance of administrative and leadership development programs in research centers:

The economic importance of programs of administrative and leadership staff development in research centers is that scientific training and enhancement of employee competencies is the proper scientific basis on which international research centers focus in preparing a generation of researchers capable of raising the scientific and economic value of research centers, Where the economic return for any continuation of the funding of research centers is considered directly dependent on the value of the outputs of these centers, whether scientific or financial and economic return, because in developed countries, the financing of research centers does not continue unless they produce outputs equal to or greater than what is spent on them, so the expected budget of any research center is based mainly on expectations of future outputs and current outputs. in the current era _era of globalization and market capitalism_ the continued provision of budgets to failed research centers that do not provide any informed outputs that do not live up to a certain level of quality is considered a kind of waste of money, so as much as research centers contribute to the provision of scientific research and excellent outputs to the extent that they provide a budget from countries or companies sponsoring the activities of research centers, and thus the economic importance of management and leadership skills development programs consisting of raising the competencies of workers and administrators in research centers, which leads to the raising of management competencies and the outputs of the two courtyards and, ultimately, the work of research centers working in the global professional policy based on scientific and economic returns corresponding to the budgets spent on these research centers.

The quality of human resources development systems in research centers such as management and leadership skills development and effectiveness, is one of the inputs on which the economic and scientific growth of those centers is dependent, and these systems are becoming increasingly important as many societies shift gradually and continuously toward the knowledge economy. Needless to say, training and rehabilitation are key elements and components of human resources development systems, which are critical and have varying budgets, programs to develop management and leadership competencies are becoming increasingly important economically because they work to raise the competencies of employees, administrators and researchers in research centers, which works to raise the scientific outputs of those centers where the efficiency of these outputs scientifically in production of a distinct scientific product that provides a financial return that covers the budgets paid to research centers and the costs of programs and courses of human resources development systems, It emphasizes the importance of human resources development systems, including training programs, vocational and technical education and raising competencies in the active contribution that research centers can make in the field of employment, invention, and development, an area in which development is not limited to economic growth and material return alone (Arab Labor Organization. 2010). To ensure this effective contribution, the outputs of human resources development systems must be of high quality and in line with development requirements and research center needs in terms of quantity and quality, as well as other goals achieved through the human resources development systems, particularly leadership and management skills:

1. Improving performance methods, thereby increasing productivity, and scientifically and practically developing workers' capabilities and skills in their field of work.
2. Enabling workers to keep up with scientific and technological progress and become acquainted with modern working methods, as well as to develop, and refine the skills of individuals and groups in order to contribute to the achievement of research centers objectives.
3. Creating a qualified second class for devolution, decentralizing performance and replacing leaders, and contributing to the qualitative and quantitative rebalancing of the employment structure through transformational training.
4. Preparing for administrative reorganization and organizational development through skills development and behavior rationalization (Abdoulwahab,2010).

5. The importance of developing functional entrance in research centers:

Employment is part of the fundamentals of education as part of public upbringing and vocational training within the framework of the mutual influence between the social system and the economic human being's upbringing, thus including a tool of adaptation and normalization that is at the heart of the process of change in the field of functional entrance, thus becoming a form of training and upbringing in light of the functional entrance, the family and educational institutions that work to provide the economic sector with the workforce and special skills that are required to achieve its objectives in the production of consumer goods and public services of society and education play an important role not only in the development of the economy but also in sustainable development and in its cohesion, the process of human development is complex because it is based on man. Therefore, the role of research centers in their study and linking them to development from the functional entrance in achieving the required training methods, whose areas differ without compromising their substance.

6. Practical steps to develop and improve training and skills development in research centers:

It seems that one of the challenges that the development and upgrading of training in research centers facing is the relationship of education with the economic development so that it seeks to enable individuals without exception to develop their functional skills so that they are able to solve problems and are adaptable to new processes and technologies to a large extent and have a great ability to innovate and are determinedly inclined to training for life to ensure that appropriate and possible solutions are given to the issues posed by research centers. One of the priorities of these challenges, which must exist among training and study programs within the framework of human development, is the state programs, i.e. the desired development in the multiple and different labor markets, whether in the public or private sector, through a professional group specialized in public and private education under the supervision of research centers specialized in human development. away from modern technology, without weighting technology on the local structure with its circumstances and problems, so that continuous training to the workforce earns an investment to provide manpower in the labor market and eliminate unemployment and its aggravation in society, and to achieve the required development in research centers can follow the following scientific policies:

1. Using financial and technical policies as one of the most important economic tools used to rise the efficiency of administrative leaders for the purpose of expanding the

production base and providing additional work for young people.

2. Facilitating the procedures to enable leaders to complete the administrative work quickly and mastery and minimize the losses faced by public institutions.

3- Commitment to education and continuing training through research centers and linking them to universities and higher institutes so that this training is reflected in graduates of universities and higher institutes so that theoretical education is linked to practical training.

4. Developing administrative structure so that it can achieve its functional objectives and improve its quantitative outputs in a way that guides and addresses waste in performance rates within economic institutions.

5. Strengthening the role of employment offices in the workforce sector in guiding graduates to appropriate work sites, paying attention to job descriptions, setting conditions, and standards for experience and effective performance without regard to personal relationships and interests.

6. Work to highlight the practical aspect in all fields in order to achieve maximum production, achievement, belonging to the job, showing aspects of development and highlighting individual skills through it.

7. Improving the incomes and salaries of workers in research centers and on jobs and leaders, as it has been shown that the economic value of any work is considered to affect the job negatively or positively.

8. Work to focus on scientific programs and activities that shape the functional structure of administrative leadership by building knowledge and professionalism in order to shape and promote positive tendencies that lead to respect for the career and professional line.

9. Support the tendency towards field visits and scientific training of these leaders as part of their skills development because they are the key element in improving their performance level.

10- Encouraging private companies and institutions to provide support to research centers so that these centers provide staff leaders to these institutions, which ensures that the tendency towards state support for these research centers is reduced like in European countries.

7. Study of the status of leadership and management skills development programs at the Biotechnology Research Center in Tweisha:

In the 20th century, the world witnessed unprecedented progress in basic and applied sciences, which in turn resulted in scientific discoveries and inventions and research related to all aspects of life, so it became necessary for all countries to keep up with these scientific developments and build a solid foundation that will enable them to compete in the world market, and perhaps the only reason to achieve this is to promote the level of education and scientific research. Based on these requirements, the Biotechnology Research Center was established in Tweisha, south of Tripoli, which is considered an important center in Libya and was opened in 2001 and aims to prepare and localize Libyan human resources scientifically qualified to work in the fields of biotechnology to keep up with the developments of these sciences and localize them to serve humanity, develop programs for the use of biotechnologies and their applications in the fields of agriculture, industry, medicine and the environment. About 584 employees, researchers and administrators work at the center, of whom 2.48% are women, the majority of whom

are in the functional and administrative staff, and of the total staff there are 326 employees working on job grades, 225 working on contracts, and one on a second from outside the center, 22 from outside the center and 10 in monthly equivalents and seasonal contracts, The center's employees vary in educational attainment, as only about 15.14% have higher degrees, master or PhD, 61.43% have Bachelor's degrees in different disciplines, 18% hold middle or high institute diplomas, or a high school degree. and 5.43% hold degrees less then high school, The center's annual budget is about 30.14 million dinars, with annual rise of about 1.3%, of which about 6.36 million dinars is allocated about 21.1% for training and rehabilitation, which includes courses and programs to raise overall efficiency such as English language proficiency courses, computer, human development, etc., as well as training in biotechnology specialties and applications in agriculture, industry, medicine and the environment, and programs to develop management and leadership skills, Training and rehabilitation includes staff and researchers, with a greater comparative advantage for researchers, including training within Libya, including programs to raise general efficiency and training abroad for the rest of the aspects, and the external training map is distributed to about 19 countries around the world, where Britain and France account for the largest proportion of external training in about 58.27% of the number of trainees abroad from the center.

Table 1 shows a comparison between the structure of training and rehabilitation programmes on 2012 and 2013 at the Biotechnology Research Centre in Tweisha, Through the table, it can be noted that the costs of programs to raise leadership and management skills during 2012 were in the range of 231,000 LyD, 3.7% of the total costs allocated to training and rehabilitation programs. and about 0.77% of the total budget of the center, which is a small percentage when compared to spending on other items and increased the budget of programs to raise leadership and management skills in 2013 to about 280,000 LyD by an increase of 21.2%, While the increase in the budget of training and rehabilitation programs increased by about 21.1% of the total general budget of the center for the same year, It can also be noted that the number of employees targeted by rehabilitation and training programs increased by about 8.2% from 500 workers to 541 workers between 2012 and 2013 and the proportion of employees receiving rehabilitation and training programs of total staff was about 85.6% in 2012 and 92.6% in 2013 now this percentage may be misleading if it is known that some employees may receive more than one training course per year and others do not, It is notable that the center tends to train the center's staff with internal training programs (in Libya) more than external programs (outside Libya), where the number of trainees in internal courses constitutes about 78.4% and 78.6% respectively for years (2012 and 2013). It is also noted that the Center tends to adopt long-term courses (more than one month to 6 months) more than short-term courses (from one to four weeks), where long-term training programs accounted for about 66.04% and 66.7% for the years 2012 and 2013 respectively and can be observed the same tendencies on leadership and management skills courses.

Table (1) shows a comparison between the structure of training and rehabilitation programmes between 2012 and 2013 at the Biotechnology Research Centre in Twesha:

No.	Category	2012		2013	
		Number	Ratio	Number	Ratio
1	Number of training targets of the Centre's staff of total staff	500	85.6%	541	92.6%
2	Number of training courses completed	53	--	51	--
3	Short-term courses of total training courses	18	33.96%	17	33.3%
4	Long-term courses of total training courses	35	66.04%	34	66.7%
5	Number of trainees abroad out of total trainees	108	21.6%	116	21.4%
6	Number of trainees within the country out of total trainees	392	78.4%	425	78.6%
7	Number of programs to increase leadership and management skills from total training programs	12	22.6%	9	17.6%
8	Number of staff targeted for leadership and management skills upgrading programmes from total training staff	22	4.4%	27	4.9%
9	Number of long-term courses of total leadership and management skills upgrading programs	9	75%	7	77.8%
10	Number of short-term courses from total leadership and management skills upgrading programmes	3	25%	2	22.2%
11	Approximate cost of total training courses	6.28 million LyD	20.9%	6.36 million LyD	21.1%
12	Cost of leadership and management skills upgrading programmes from total training and rehabilitation costs	231,000 LyD	3.7%	280,000 LyD	4.4%

* Preparing the table data and then collecting it through an interview conducted by A. Abdoulwahab Alazragh with A. Tarf Al-Murabit, Head of Financial and Administrative Affairs at the Biotechnology Center.

Through the previous table No. (1) it can be noted that about 20.9% and 21.1% of the center's budget for the years 2012 and 2013 respectively are spent on rehabilitation and training programs, which is a good percentage but the scientific and financial output of the center does not cover the costs spent on it during 2012, for example, only about 15 trainees receive a superior or excellence degree in training courses of 500 employees who receive training programs of no more than 3%, and the rest only get certificates of participation in the courses, What is clear through the visit to the Biotechnology Research Center is that there are many problems and obstacles to programs to raise leadership and management skills, the most important of which is the lack of qualified trainee elements, where the center harms to bear the costs of programs and courses of rehabilitation and training and especially in raising the efficiency of workers in English language and

computer courses and developing management and leadership skills, in addition to raising the efficiency of workers in their specialties due to poor outcomes of university and higher education in Libya, It is also noticeable that there are more than 23.43% of employees who do not have a university degree, which increases the cost of rehabilitation and training programs, and it is better for the center to review the conditions of admission of employees, and solve the problem of administrative corruption in the admission of employees, the center is also unable to prepare in advance the feasibility of rehabilitation and training programs, especially the programs to develop management and leadership skills and link them to the economic feasibility of these programs, where it is noted that there is no prior plan for the structure of work, including knowledge of the budget of the center and the percentage allocated for training and rehabilitation and preparing economic feasibility for returns from training programs and giving priority to obtain courses for distinguished workers according to their scientific and practical competence. Through the rehabilitation and training programs for 2014 from 01/01/2014 to 07/02/2014, it can be observed that there is randomness at work where training programs are then provided to about 118 workers at the center among 586 workers targeted to raise efficiency, i.e. by achieving a target of training about 20.1% by 82.2% internship and 17.8% external training and therefore about one fifth of the training programs scheduled and then implemented in the first month of the year and here can be observed randomness, confusion and administrative corruption in programs the efficiency development of workers, The Center is also not interested in development leadership and management skills by the weakness of programs percentage for these courses compared to the rest of the rehabilitation and training programs (Interview with A Tarf Al-Murabat, Head of Financial and Administrative Affairs at the Biotechnology Center,2017).

Results and Recommendations:

From the above, the study has reached the following conclusions:

1. There is a marked disparity among the staff of research centers, especially at the management and leadership levels, in terms of skills and the ability to manage, think, and innovate. In addition to that, research centers need a total development in the conditions of admission to employees as well as programs to raise the efficiency of management skills and leadership.
2. There is a big crisis in the number of employees and the development of their management and leadership skills, and this problem is manifested in a crisis in thought and creativity, in addition to a crisis in the outcomes of education, and the major crisis is considered to be in focusing on receiving our students some sciences without others, which does not build leaders in general, where the focus is not on teaching students life skills such as planning and intellectual creativity, and how to deal with people of different minds. Therefore, it is noticeable not to pay attention to the humanities that make leaders in all areas of the humanities, which makes usable
3. A big mistake occurs when selecting technical staff for leadership positions, where most of the time, we choose from the holders of higher degrees in the same specialization as the research center, and we forget that the higher administrative centers need to master the profession of management, planning, and scientific thinking in addition to higher certificates to raise the outputs of research centers.
4. Most research centers implement programs to raise the efficiency of workers in a

random and irresponsible way, so that they have no idea about the importance of these programs economically as well as the material return from these programs, which is summarized in the high value of the outputs of the research centers, and then the employees who then raise their competencies are employed in the right place, which leads to the development of the outputs of these research centers and thus raises the economic return, which is equivalent or more and then spent on these research centers.

Among the most important recommendations that can be made are:

*Supporting research centers with qualified and specialized elements with outstanding performance rates in the fields of management and strategic planning.

*Focus on the establishment of training courses for the center's employees in their fields of specialization and adopt the principle of transparency in the selection of trainees based on work reports and their scientific and practical competencies. based on the principle of economic feasibility, and raise the scientific and financial return of the center to cover at least the budget paid to the center.

*Review the conditions for admission of staff and researchers in line with international systems and standards based on scientific competence and specialization.

* Encouraging companies and private institutions to provide support to research centers so that the private sector works to provide financial support and trained and qualified administrative staff with a high degree of excellence to lead research centers with a scientific and economic research mentality in order to ensure that the state's support for these centers is reduced, as in developed countries.

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