

Polarisation of scientific competencies and their role in entrepreneurial development**Karim Imoudache**

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Abstract:

The main objective of the study is to investigate how to create a link between scientific competencies and the general context for the development of entrepreneurship. That means looking after the conditions and mechanisms that allow to attract it to adopt society issues, economy issues and the public interest.

To realize the stakes associated with the problem of attracting scientific competencies in the context of its social movement we have adopted a contextual methodology on systemic interactions; Which allowed us to draw up a new approach around the triangle of polarization dynamics for the development of entrepreneurship. As we have identified four keys to activating it.

Keywords: entrepreneurial logic; scientific competencies; entrepreneurial competencies; polarization dynamic; Economic policy.

Jel Classification Codes : M13 ; I23 ; M13 ; M51 ; L26.

ملخص:

يتمثل الهدف الأساسي للبحث في التفكير في كيفية خلق الارتباط بين الكفاءات العلمية والسياق العام لتطوير المقاولاتية، بمعنى في الظروف والآليات التي تسمح باجتماعها إلى تبني قضايا المجتمع، الاقتصاد، والصالح العام. لأدراك الرهان المرتبط بإشكالية استقطاب الكفاءات العلمية في سياق حركتها الاجتماعية، اعتمدنا منهجية تحاول فهم الظاهرة المدروسة في سياقها العام في ظل التفاعلات النظامية، وهو ما سمح لنا برسم معالم مقارنة جديدة حول مثلث ديناميكية الاستقطاب لتطوير المقاولاتية، كما حددنا لها أربعة مفاتيح أساسية لتفعيلها. الكلمات المفتاحية: المنطق المقاولاتي؛ الكفاءة العلمية؛ الكفاءة المقاولاتية؛ ديناميكية الاستقطاب؛ السياسة الاقتصادية.

تصنيف JEL: M13 ; I23 ; M13 ; M51 ; L26 .

I. Introduction:

In the field of the economy, entrepreneurship is considered as a real tool to drive development and growth at all levels in contemporary societies, that in light of new challenges such as the liberalization of foreign trade and the globalization of markets. Since the development of economy is linked to the importance given by countries and societies to the entrepreneurship thinking and its effective Tools.

New studies have shown The invalidity of the hypothesis that links innovation and development to major institutions only, and shed light on the effective role of the entrepreneur in the dissemination and creation of scientific knowledge, and considered him the missing link in the equation of economic development and social welfare [Audretsh, Keilbach et Lehmann, 2006]¹.

A recent report [T. SABA, S. Blanchette et C.Kronfli ; 2021]² has highlighted the ongoing importance of competency gaps for small and medium-sized enterprises, making it challenging to attract, assess, and develop talent. Another report [D.CHABAUD, N.BACHER ; 2019]³ has pointed out three challenges facing the scientific community: a conceptual challenge regarding the entrepreneurial problem, a methodological challenge, and a challenge related to establishing tangible practical links with entrepreneurs. Thus, our study will delve into the complexity apparent in the entrepreneurial dilemma.

In another perception, [Van der Sijde, 2008] considers the university as a true laboratory for entrepreneurship, in line with the proposal of [Verstraete, 2000]⁴, who considers it as a rich and diverse reservoir of entrepreneurs. However, the acceleration of events and their complexities today especially with regard to the requirements of economic and social development puts us in a situation where we lack a clear conception about the necessary elements that lead to the effectiveness of the work of the system as an integrated whole.

In fact we can mainly attribute this to the researchers' interest in major institutions and presenting them as models for success and neglecting the role of scientific competencies in entrepreneurial development.

Then, this research falls within the context of managing the dynamism and complexity inherent in this relationship by asking the following question: **How can scientific competencies be recruited and employed in the context of entrepreneurship development?**

The importance of the research is mainly linked to the fact that it sheds light on the relationship between scientific competencies and the problematic of developing the entrepreneurial system. It also aims to define its features and conditions through a new approach, in addition to trying to formulate a set of proposals for an effective economic and social policy.

Attempting to achieve the specific goals requires us to think also about the effective method and approach to building ideas and formulating solutions to the problematic we asked. In this context, we have followed the approach adopted in the work of [PETTIGREW; 1985,1987,1990], which looks at how to determine an accurate understanding of contextual elements and their impact on a particular phenomenon, by interpreting the impact of these variables in a framework of possible events (change) and their contribution to the emergence of renewed organizational applications

The comprehensive description of the research methodology depends in the first stage on an attempt to understand the entrepreneurial phenomenon in its dimensions, and this understanding was projected onto the general interactive context of the various actors, and in the light of this convergence, we ended up defining the role and contribution of scientific competencies and tools for attracting them in the development of entrepreneurship.

II. Competencies: the hidden front of the entrepreneurial phenomenon :

History may record in some circumstances the loss of a certain system to justifications for its existence and then it disappears from existence, but it is noticeable that the term entrepreneurship is one of the constants inherent to the economic and social development, as it falls within a continuous dynamic that glows in certain circumstances and subsides in others, and with this the entrepreneur remains the most important actor in the global history of economy and society [Weber, 1991; Swedberg, 2005]⁵.

Therefore it's important to define the concept of entrepreneurship which generally expresses the method that seeks to create new organizations from the standpoint of a complex combination of information and knowledge which sometimes extends its scope to changing the rules of the economic game and the stability of its social features. Its common manifestations are determined in many forms, perhaps the most important of which are Renewal, innovation, exploitation of available opportunities, risk taking, and independence of decision-making.

It is therefore useful to refer to the theoretical origins of the concept of entrepreneurship before we treat it from its administrative and organizational angle. Thus, we find it appropriate to address the theoretical roots of this concept, which extend to the depths of economic history. We first mention its Latin origins, which derive from the word (*Operis conductor*), which is used to denote everything that can be described as creative. In this context entrepreneurship refers to all issues based on taking risk, and human adventure without prior guarantees of success [R.CANTILLON, 1697-1735], and perhaps this principled orientation of entrepreneurship, is what explains its absence in the writings of Adam Smith, as a theorist of moral philosophy.

From an economic perspective, regardless of the points of convergence and divergence about the drivers of entrepreneurship we always find implicit references to the idea of competencies. According to the Austrian thinker [Schumpeter, 1928], entrepreneurship is located in the context of observing and exploiting opportunities within a specific regulatory framework, which represents the optimal medium for renewal through synthesis between resources and competencies. In another view [Penrose, 1963; Kirzner, 1930] Entrepreneurship is an activity that targets opportunities that are pushed by the economic environment. The matter is not related to renewal, but to follow the imbalance spots that are often not visible to everyone, which requires entrepreneurial vigilance about profit opportunities, attributed to the contractor the ability to exploit information spontaneously⁶. Due to this competence, the entrepreneur can gather between the elements of production and social positioning to gather information. We should always note that knowledge is the evolutionary context of information.

Nature does not accept vacuum, and vacuum can be embodied in a state of uncertainty, which according to [Carl Menger, 1840-1921]⁷ is an introduction to explaining the entrepreneurial phenomenon, the economic agent through experience and knowledge acquisition that create rules and systems in order to reduce the state of uncertainty. These rules and systems are the product of a spontaneous behavioral interaction of individuals among themselves, where tacit knowledge is generated, but this latter is by its nature silent and encrypted and difficult to discover and employ it except by intelligent and inspiring people.

Menger's conception exposes the role of the impact of attracting scientific competencies in the development of entrepreneurship in terms of the nature of entrepreneurial efficiency and the mechanisms of the industry knowledge; Also the importance of systematic interaction between various economic actors and the mechanisms of activating organizational learning. It also brings us directly to Sombar's work, which defines the distinguishing features of the contemporary contractor in two main factors: speculation and calculation on the one hand, and management and coordination on the other hand⁸, or what we express in general as the necessity of openness of entrepreneurial competency to administrative and organizational competency.

As for experts in psychology, cognitive psychology, and sociology [Ronstad, 1984; Toulouse, 1988; Stevenson et jarillo, 1990; Timmons, 1994; Danjou, 2000]⁹ they emphasize the possibility of studying entrepreneurship from an individual perspective. That can be achieved when individuals try to translate their perceptions about the future And their abilities to identify opportunities to achieve a corresponding response to market aspirations, or when interpreting behavior in relation to a system of needs, motives, personal characteristics and special competencies, and the decision to submit to a reality or uprising. In fact Cognitive psychology is concerned with the concept of entrepreneurship within the frame work of three

integrated dimensions: strategic vision, behavior control and that through the reading of reality and organizational learning.

Thus, the root characteristics of the concept of entrepreneurship can be determined according to the law of its development, starting from the initial state of the desired future linked to the lived reality. Then, developing the necessary knowledge through learning to reach this objective. That is mean that the association with universities, training institutes, the world of ideas and scientific competence, education and training in general is an organic link for the entrepreneurial system.

The evolution of phenomena can be realized only in the context of its movement and the organization of its work process. Therefore, we are also excited by the implications of the concept of entrepreneurship in management sciences; As it is usually directed, in particular, towards treating the relationship that brings together a particular phenomenon with the various actors who interact and influence the environment in which it develops¹⁰. The images of this interaction will appear in the formulation and organization of new activities through continuous periodic processes to build ideas, to evaluate oneself, and to reconsider current and future trends in a dynamic of a creative change [Gartner, 1985; Cunningham et Lischeron, 1991; Bruyat, 1993; Shane et Venkataraman, 2000]. And that shifts attention to the necessity of controlling the basic stages of the entrepreneurial phenomenon, which are identified by [Bruyat, 1993]¹¹ in three dynamic stages :

1-The starting stage: or what we call the stage of liberating the entrepreneurial energy when the tension rope is broken by internal forces (competencies, attitudes, state of dissatisfaction) or external (opportunities, information, general economic and social situation);

2-The stage of the contractor's total commitment: or what we call the stage of directing free energy, and commitment occurs when the level of driving energy (clear goals, support for the environment, family inheritance, desire for success) exceeds the level of inhibiting energy (bureaucracy, nepotism, unequal opportunities, absence of efficiency) ;

3-The stage of the struggle for survival and growth: or what we call the stage of energy transformation into new forms of human activity or its extinction and the failure of the entrepreneurial project.

In light of the foregoing, we confirm that the law of the entrepreneurial system expands outside the will of its various actors. Since , the entrepreneurial behavior is controlled by several complex dimensions in both its content and meaning, and it is the basic criterion that allows us to think about the problem of research in terms of the convergence that exists between these dimensions. Therefore, when giving to the scientific competence its real value we will be able to build and define its tasks and formulate the mechanisms of its attraction.

However , when it closes itself in the margins of serving its logic (academic research separate from economic and social reality), its role cannot depart from its rational framework, and its position in a function of formation far adopting independent issues .

III. Towards a rapprochement between scientific competence and entrepreneurial logic:

Whatever the depth of the relationship between the variables of the economic and social structure of entrepreneurship it is always possible to reach a kind of rapprochement that allows for a decisive shift in the foundations and the dominant logic of the various actors. Thus, in this case we can,t define the necessity and attitudes only in a global and general policy linked to entrepreneurship. For example, we can't assign the responsibility of attracting scientific competence to the university as a basic incubator for it as it does not have the time or the global vision about the necessary connections between its elements. However, it remains necessary to organize this space and take the initiative in the task of developing entrepreneurship.

In our view we think that the first building block that should be laid for this building is to think about how to integrate scientific competencies into the nature of entrepreneurship itself. As the training system in general is limited to developing expertise in specific fields, and it is rarely concerned with developing the main competencies of entrepreneurship work¹².

That is why it will be essential Standing at the boundaries between the two interfaces to derive the conditions through which we can answer the problem of attracting scientific competencies.

However , before that it is important to determine the link that exists between scientific competencies and entrepreneurial orientationand and to check we use data derived from a recent study (2015), that included eleven small and medium enterprises in France¹³, which leads us in principle to consider the existence of a strong link between educational qualifications and the experience gained for individuals , and the tendency to adopt the entrepreneurial logic while drawing attention to the conditionality of this link.

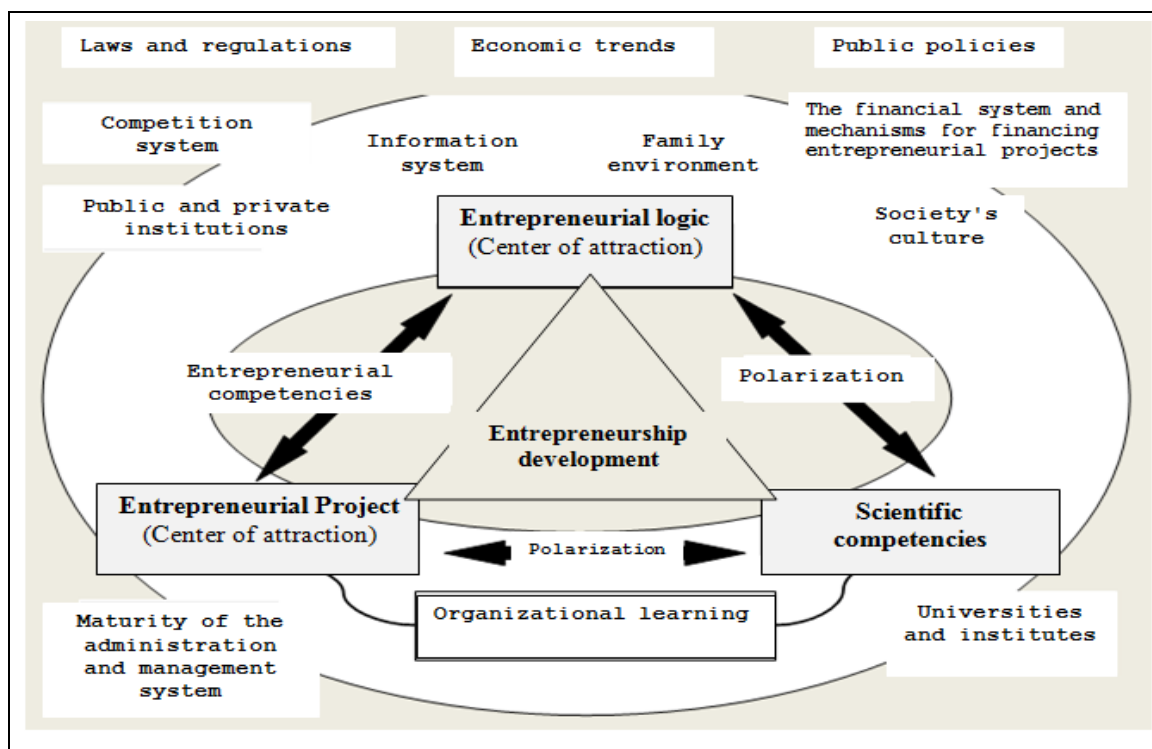
The observations we made in the above allow us now to define entrepreneurial competence as a presentation of scientific competence in its social movement, establishing new forms of activity in which their content and meaning are determined, in the sense that we also note the existence of a link Between the nature of scientific competence and the content of the entrepreneurial act.

Before we gather the necessary elements that scientifically judge the validity of this intuition, we stress on the importance of studying this link in relation to the system of priorities for directing economic policy and controlling it with the policy of scientific research and national education.

The openness of scientific and educational institutions to the new requirements and changes of the environment leads to the need to play new roles with dimensions that tend more and more to be a social and cultural interface, on the other hand, the development of entrepreneurship as an intellectual trend can represent a strong attraction center for competencies and resources which are considered as the fruit of interaction between what the individual,s competencies, values, attitudes and the possibilities available to create new values within a dynamic of creative change.

This intellectual model puts entrepreneurship at the heart of change, where we move away from the classical trend that seeks to simplify its meaning within certain rational limits (economic, psychological, social, administrative, and organizational perspectives) and seeks today using systematic approaches through integrating the various variables in the general context of entrepreneurship development.We put its general conception in the form shown below.

Figure 1: The triangle of polarizing dynamics of entrepreneurship developmen



Source : Imoudache, 2023

The importance of this approach appears in its ability to answer the fundamental question of the study in terms of the interactions between its parts. Since Social systems, whatever their nature, cannot perform their joint activity without the network of relationships that compose its various elements. Therefore, we will try in the following to show the role of scientific competence in its social movement to develop entrepreneurship and this is part of an approach that we decided to call the dynamic polarization triangle approach to the development of entrepreneurship.

IV. Triangle of polarization dynamics for entrepreneurship development

In fact, exposing the problem of attracting scientific competencies is mainly due to its importance in building the economies of countries through the development of entrepreneurship. Actually, approaching this problematic requires a framework of a comprehensive economic and social policy. When polarization occurs in a certain direction, this necessarily requires the occurrence of Leakage on the other hand (the phenomenon of brain drain) which was well realized by a country like Chile through a government program entitled Migration in the Enterprise Service for the year 2010, after six years of activation of the program, several positive indicators appeared on the Chilean economy.¹⁴

As for a country like South Korea, it has adopted a polarization program entitled: Upgrading the Creative Economy, which is based on six integrated strategies¹⁵: appropriate compensation for creativity and creating an ecosystem that encourages youth, supporting the role of small and medium-sized enterprises in the creative economy, creating new engines for development to develop new industries, supporting the emergence of talent Creative, supporting scientific and technological capabilities for innovation, consensus on a community project to establish a culture of creativity.

In fact attracting scientific competencies is taking the attention of many countries today, and this is due to its great importance in bringing the desired change towards higher levels of economic development and social welfare ; And polarization is a system of attracting resources and competencies subject to the same law of attraction which is moved by centripetal and centrifugal forces .Thus , the dynamics of the system in both directions is controlled by the contrast between the level of the two opposing forces.

In this context , when entrepreneurship and the entrepreneurial project are considered as a center of attraction, it is necessary for us firstly identifying the forces that keep us away from its path, and a detail of them has been presented in the report of the United Nations Secretariat for the year 2018, inspired by the work of [Cooney, 2012]¹⁶, where a distinction is made between :

1-Internal obstacles mainly related to the efficiency of the contractor and the nature of the contracting project: psychological factors and motivating mechanisms, the ability to manage, the ability to locate in social networks, the level of financial support, the commercial capacity of the project, the nature of the product and the level of demand.

2-External obstacles that are mainly related to the general business environment : the economic and commercial climate, the legal system, government policy, the nature of the market and competition, the labor market, barriers to entering the market, the level of economic development, the global and local economic environment.

The polarizing dynamic triangle approach to the development of entrepreneurship is looking at how to increase the level of the forces of central attraction to a level that exceeds the internal and external obstacles in order to liberate the entrepreneurial energy ; And this is the scale that directs thinking towards the content of the relationship between scientific competencies and entrepreneurial logic on two levels: the efficiency level itself looking at the possible margins of change according to the compatibility that exists between the scientific and technical competencies of the contractor and the competencies acquired in the contracting project [Filion, 1991]¹⁷, and at the level of the general context looking at what changes the social framework in which the activity exists .

It remains for us to define the concept of competencies which is also characterized by complexity ; So we will be satisfied with the definition of [De Montmollin, 1984]¹⁸, which serves our perception of the nature of competency that is generated in certain professional conditions, and it defines: “as a stable set of knowledge, methods of performance, stereotypical behaviors, special procedures, ways of thinking, that can be adopted without new learning and

that structure the achievements of the professional path and allow anticipating phenomena, embedding concepts and adapting to changing tasks”. This concept is relatively compatible with the content of scientific competencies with regard to following a special methodology to understand and analyze phenomena and anticipate their trends, as it adopts an objective, logical behavior to address a specific problem by recruiting a set of theoretical and applied knowledge in a particular field.

The stability of the scientific competence and its ability to find solutions serves directly the entrepreneurial logic especially in renewal and the awareness of the changing requirements of the entrepreneurial context. But on the other hand, the more scientific knowledge is accurate and expert in special cases, the more it is closed within the limits of its rationality and then it loses its ability in social interaction, While the most important features of entrepreneurial competence, such as independence, diversity of specialization, normative orientation, awareness of the impact of technology, and new ways of working, vigilance and social positioning, are the features of organizational learning. However, our knowledge remains very limited in this field , and does not receive sufficient attention in the context of research on Entrepreneurship [Deakins et Feel, 1998]¹⁹.

In this context the necessary dynamism for the development of entrepreneurship requires thinking about how to fuse scientific competence in the entrepreneurial logic, and the work of [Miller, 1989]²⁰ puts us in the form of this convergence and divergence, which is illustrated in Table 1.

Table No. 1: Characteristics of the scientific researcher and entrepreneur according to (Miller, 1989)

scientific researcher	entrepreneur
An expert in one or two fields of technology (the logic of scientific expertise)	A talented person who believes in the future of an idea and is able to convince others of its effectiveness and feasibility (the logic of renewal).
Preference for theoretical aspects and design methods (objective logic).	Committed and persistent, he finds the necessary resources to achieve his project.
Related to addressing scientific and technical problems (search for compatibility).	Love of risk-taking and motivated to achieve his ambitions, and works hard to overcome difficulties (the logic of risk).
Creator of new ideas and concerned with the feasibility of using them (the logic of innovation).	Imagination and initiative (logic beyond the limits of scientific knowledge)
He prefers individual work and is a bit dreamy (individual logic).	He does not hesitate to take financial risks and recruit his interests to achieve his ambitions and goals.
	Interested in all aspects of innovation, and prefers technical development over academic research.

Source: Miller, 1989.

Through our reading to Miller's work, we can confirm that the entrepreneurial act can not result from the knowledge received only but through the social knowledge that is generated in the same context , and this requires the openness of scientific competencies to the entrepreneurial logic. Therefore, I cannot be very excited about the ideas that Call for entrepreneurship to be taught as a standard or specialization in universities and schools.

On the other hand, I proposed four basic keys to activate the dynamic of polarization for the development of entrepreneurship : the ethical approach that supposes that every social relationship is in essence a cultural value and its key is acceptance of moral values ;The approach of trust as a guarantee of the continuity of social relations and its key is trust ; The entrance to the new identity of the researcher and its key is job satisfaction ; The entrance to organizational learning for joint building of competencies, and its key is to control the requirements of change.

The ethical approach is the product of the positive assessments attributed by the different spectrums of society to a particular phenomenon, and its key revolves around accepting the moral values expressed by entrepreneurship ; and this acceptance is determined in relation to the common interest , to common values (the logic of renewal), to the results of the activity (creativity, new organizations), and to morality of the procedures adopted in dealing with the various actors (the principle of equal opportunities, clear rules of play for all).

As for the presentations through which ethics can be included at the level of the relationship between scientific competencies and entrepreneurial logic, it is possible to formulate a communication policy about socially acceptable values (participation and dialogue regardin economic and social concerns and interests), or the pursuit of the public good through a focus on the ethical values of the scientific discipline, and it can also be based on formulating transparent procedures to evaluate and appreciate the researcher's contribution in the field of entrepreneurship development.

The entrance to trust is related to social exchanges which unlike their economic counterparts integrate interactions that derive their content from undefined commitments between the various parties [BLAU; 1994]²¹, in other words the activation of the social network depends on the trust key ; This latter is automatically formulated in the form of an idea or a belief imposed by the social environment on the behavior of the various parties. Therefore we often notice the absence of the ego in research work until it has received acceptance in the scientific community, while the works [Filion, 1994]²² confirm the existence of a strong correlation between the desire for success from the concept of ego and the need to learn which explains many cases of success in the field of entrepreneurship.

Attracting scientific competencies by activating the trust key means allowing the ego to be represented in the social network, by communicating , presenting and introducing successful scientific models in the field of business (la preuve sociale au sens de la psychosociologie) or by developing the ego of the researcher. That means the more the ego of the individual is, the more open he is to the others. [Filion, 1994]²³ was the first to use this term and defined its characteristics shown in the following table :

Table N°2 : Characteristics of the ego domain according to (Filion, 1994)

Narrow Ego Horizon	Wide ego Horizon
The search for compatibility	The search for originality
Preference for linear thinking	Preference for systemic thinking
polarization towards the absolute	Polarization towards contextual variables
Dogmatism and rigidity	Relativity and flexibility
Man is seen as a tool	It is considered that man makes his own destiny
He imposes his vision of things	It proposes and explains approaches

It applies the all-or-nothing rule	Negotiate and chart the way
Looking for cancel differences	Respects difference and diversity
Ready solutions are preferred	It is preferable to find a solution
Not tolerant of mistakes	Tolerant of mistakes

Source: (Filion, 1994).

The entrance to the new identity of scientific competencies in the service of entrepreneurship, puts us in the inevitability of defining roles and responsibilities, the key of which is job satisfaction from the basis of a common understanding (identifying the elements of influence, understanding requirements and needs), which often expresses the confrontation between the aspirations of the various actors and their preconceptions of what It can be provided by a particular system. The role can be defined as a pattern of motives, goals, beliefs, values, tendencies, and behavior that members of the group expect to see in someone who occupies a job or occupies a certain social position. The content of the role is determined by the requirements of job duties, and the network of relationships that determine the form of the organizational and social structure.

Accordingly, the scientific competence cannot play its new role in the development of entrepreneurship except within an organizational framework that defines the parameters of its contribution and which should be socially recognized. Here, the importance of business incubators and digital platforms as a space for strategic interaction appears if certain conditions are met :

- 1-Independence and freedom of thought: The organization itself should not represent an obstacle to the movement of information and ideas between different actors, but rather it must be controlled according to some agreed ethical rules to ensure its continuity.
- 2-Determining the axes of intellectual interaction in terms of the economic and social situation of the Country according to future policies.
- 3-Determining the nature of the contribution of the scientific competencies according to the stages of development of the entrepreneurship projects and up to the scientific specializations.
- 4-Consolidate the principle of exchange by calculating the various interests of the most influential actors in the entrepreneurial space and highlighting them as models.
- 5-Establishing the principle of influence through the involvement of scientific competencies in expressing opinions about important issues ; and we don,t forget today that ideas and perceptions about a particular issue of some can nourish the genius of others.
- 6-The principle of showing willingness to pay attention to the concerns of scientific competencies (the appropriate disposition), and if the environment succeeds in achieving this, it will be represented in a good image that guarantees it an independent support from meeting the various demands in the short term.

The entrance to organizational learning defines its conception of entrepreneurship as a dynamic context for learning through acquiring the competencies and knowledge necessary for the the continuity and development of entrepreneurial projects [Cope, 2005; Politis, 2005], and its key is to control the change requirements at the level of the interface of the entrepreneurial competency ;And that takes us back to the basic stages of the development of the entrepreneurial phenomenon that was determined by [Bruyat, 1993].

Entrepreneurial energy is liberated when the tension rope is interrupted by internal forces (competencies, attitudes, state of dissatisfaction) or external (opportunities, information, general economic and social situation) ; And at this level of polarization, scientific

competence can fuse in the entrepreneurial logic, or contribute In formulating ideas, identifying trends, and contributing to uncovering opportunities and managing uncertainty.

The stage of directing the emitted energy comes right after, where the entrepreneurial efficiency emerges by focusing on priorities, focusing on a specific field, acquiring the necessary experience and knowledge about the subject, positioning in the social network to gather information, thinking about how to obtain resources. Actually ,polarization at this stage is related to the intellectual level and the contractor's openness to the space of scientific competence, where it can play an effective role in embracing and supporting the entrepreneurial idea, especially with regard to designing solutions and feasibility studies in all its aspects.

The last stage is the stage of the systemic representation of the entrepreneurial project, when energy is transformed into new forms of human activity. In fact attracting scientific competence in this case takes on an organizational form ; In this stage universities can play an effective role by directing students to study the case of actual entrepreneurial projects (small and medium enterprises) and facilitating communication with its actors which could affect their ability to absorb entrepreneurial thought.

V. Conclusion :

The problem of attracting scientific competencies and employing them in the service of the economy and society is a problem of states by excellence, and it is not separated from the actual social reality ; As it is an inevitable result of a blurring in perceptions and ambiguity in attitudes linked to the necessary actions and behaviors that should be adopted for the integration of the network of social relations.

In conclusion, we can now answer the question posed: How can scientific competencies be attracted and employed in the context of entrepreneurship development? Where can we first evoke our concept of entrepreneurial efficiency as images of scientific competence in its social movement, establishing new forms of activity in which its content and meaning are determined ; And on this basis we proposed the approach of a triangle of dynamic polarization for the development of entrepreneurship which showed a number of results :

1-The stability of scientific competence and its ability to find solutions directly serves the entrepreneurial logic, especially with regard to renewal and awareness of the changing requirements of the entrepreneurial context.

2-The necessary dynamism for the development of entrepreneurship requires thinking about how to integrate scientific competence into the entrepreneurial logic.

3-The entrepreneurial act can not be a result of knowledge received only, but also from the social knowledge that is generated within the same environment.

4-Polarization represents a system of attracting resources and competencies which are a subject to the same law of attraction which is moved by centrifugal and centrifugal forces. The dynamics of the system in both directions is controlled by the contrast between the level of the two opposing forces.

5- the activation of attracting scientific talents within the framework of a dynamic triangle approach can enhance entrepreneurial development. This can be achieved through four approaches: The ethical approach, considering that every social relationship is fundamentally a cultural value, and its key lies in accepting ethical values. The trust approach, ensuring the continuity of social relationships, with trust being the key factor. The new identity approach for researchers, with job satisfaction being the key factor. The organizational learning approach for collective competency building, with the key factor being the control of change requirements.

And for our knowledge, we understand that disconnected reality from its general context cannot contribute to meaning-making. Therefore, we have decided to provide some recommendations for an effective policy of attracting scientific talents with the aim of developing entrepreneurship :

Firstly, when formulating public policies, it is important to restructure the information system around the concept of entrepreneurship to clarify the picture through which homogeneity

can be created among its elements at all levels. It is also necessary to conduct linkage studies to determine its future directions.

Secondly, it is important to listen to the interests and concerns of scientific talents regarding the issue of entrepreneurial development as an economic and social model. This is necessary to identify the challenges related to resistance to change and to encourage the active participation of talents in this trajectory.

Thirdly, it is important to address the causes of brain drain concurrently with considering the formulation of an attraction policy.

Fourthly, enriching educational programs to promote entrepreneurial culture within society, and creating a digital space for the entire scientific community, without exception, that allows interaction on economic and social issues.

Referrals and references:

¹ François FACCHINI, (2007), **Entrepreneur et croissance économique : développements récents**, Revue d'économie industrielle, 3^{ème} trimestres 2007, P4.

² T. SABA, S. Blanchette et C.Kronfli, (2021), **Soutenir l'entrepreneuriat et les PME : Un programme postpandémie pour les compétences et la formation**, rapport accessible en ligne : anglais//français ISBN : 978-1-77452-063-5. P33.

³ D.CHABAUD, N.BACHER, (2019), **Accompagnement entrepreneurial : pistes et réflexions tirées d'une revue systématique de la littérature francophone**, 11^{ème} congrès de l'Académie de l'Entrepreneuriat et de l'Innovation. P23.

⁴ VERSTRAETE.T, (2002), **Essaie sur la singularité de l'entrepreneuriat comme domaine de recherche**, les Editions de l'ADREG.

⁵ S.BOUTILLIER, A.TIRAN, (2016), **la théorie de l'entrepreneur, son évolution et sa contextualisation**, De Boeck Supérieur, 2016/2 N°50, P220.

⁶ A.OMRANE, A.FAYOLLE, O.ZERIBI BEN SLIMANE, (2011), **les compétences entrepreneuriales et le processus entrepreneurial : une approche dynamique**, la revue des sciences de gestion, 2011/5 N°251. P92.

⁷ S.BOUTILLIER, A.TIRAN, **OP.CIT. P218.**

⁸ S.BOUTILLIER, A.TIRAN, **OP.CIT. P221.**

⁹ A.OMRANE, A.FAYOLLE, O.ZERIBI BEN SLIMANE, **LOC.CIT.**

¹⁰ Ramandji DIMBI, (2005), **«Discussion autour de la Co-construction de la légitimité organisationnelle : Comment l'entreprise réconcilie l'économie et le Social dans les relations avec ses parties prenantes ?»**, Document de recherche, CNRS, Recherche en Management UMR N°7088, laboratoire CREPA, Université Paris Dauphine.2005. P1.

¹¹ A.OMRANE, A.FAYOLLE, O.ZERIBI BEN SLIMANE, **OP.CIT. P94.**

¹² M.BAYAD, Y.BOUGHATTAS, C, SCHMITT, (2006), **Le métier de l'entrepreneur : le processus d'acquisition des compétences**, 8^{ème} congrès international francophone en entrepreneuriat et PME. Octobre 2006. P2.

¹³ Didier GRANDCLAUD, (2015), **Les croyances, représentations et facteurs façonnant l'intention de croissance du dirigeant de PME**, Thèse présentée et soutenue publiquement en vue du Doctorat en sciences de gestion, université de Strasbourg, 2015.

¹⁴ Conférence des nations unies sur le commerce et le développement, Rapport 2018 sur les pays les moins avancés. P127.

¹⁵ CNUCED, **OP.CIT. P126.**

- ¹⁶ CNUCED, **OP.CIT. P91.**
- ¹⁷ Katy LANGLAIS, (2002), **Caractéristiques entrepreneuriales et compétences spécifiques du chercheur qui démarre une entreprise dans le secteur biopharmaceutique**, mémoire de la maîtrise en administration des affaires, Univ Québec, 2002. **P49.**
- ¹⁸ M.DE MONTMOLLIN, (1984), **l'intelligence de la tâche**, Eléments d'ergonomie cognitive, Berne, Peter Lang, **1984.**
- ¹⁹ Z.AOUNI, B.SURLEMONT, **le processus d'acquisition des compétences entrepreneuriales : approche cognitive**, 5^{ème} congrès international de l'académie de l'entrepreneuriat.
- ²⁰ Katy LANGLAIS, **OP.CIT. P17.**
- ²¹ Gilles SIMARD, Olivier DOUCET, Sarah BERNARD, (2005), **«Pratiques en GRH et engagement des employés : le rôle de la justice»**, Revue Relations Industrielles, Vol. 60 N°2,2005, P296-319. **P300.**
- ²² Katy LANGLAIS, **OP.CIT. P40.**
- ²³ Katy LANGLAIS, **OP.CIT. P41.**