



Small and Medium Enterprises: Essential Accelerators in the Network Economics-A scale-up case

المؤسسة الصغيرة والمتوسطة: محفزات لا غنى عنها في اقتصاديات الشبكة - دراسة حالة نموذجية للنمو المتسارع

^{1*} IMOUDACHE Karim, email : karim_imou@yahoo.fr

¹ University of Alger3-Algéria (Algeria)

Received: 13/04/2024

Accepted: 22/11/2024

Published: 15/12/2024

Abstract

Keywords

Upgrading the small and medium enterprise imposes the necessity of weaving the threads of the network between the economic and social forces. In fact there is no confirmation of the existence of a self-aware entrepreneurial system about the importance of network economics in achieving development. And the importance of this research can be shown in exposing the entrepreneurial dynamism in its network context. Thus, allows forming an image about the role entrusted to entrepreneurship in activating the economics of the network. We have adopted the methodology of a case study in the context of systemic interactions. We concluded with the reality that small and medium enterprises do not grow according to a logic that necessarily conforms to the requirements of entrepreneurial thought; But through the need to play new roles by integrating networked dynamics in their development model.

SMEs ;
Network economics ;
Entrepreneurial
Logic ;
Network Logic.

JEL Classification Codes : L25 ; L14 ; L26 ; L22.

المصطلحات المفتاحية	المخلص
المؤسسة الصغيرة والمتوسطة؛ اقتصاديات الشبكة؛ منطق مقاولاتي؛ منطق شبكي.	ترقية المؤسسة الصغيرة والمتوسطة ستكون عاقبته ضرورة حبا خيوط الشبكة بين القوى الاقتصادية والاجتماعية، وليس هناك ما يؤكد وجود منظومة مقاولاتية واعية بذاتها حول أهمية اقتصاديات الشبكة في تحقيق التنمية، وأهمية البحث تلامس الديناميكية المقاولاتية في سياقها الشبكي، ويحدث أن تتكون لدينا صورة حول الدور المنوط بالمقاولاتية في تفعيل اقتصاديات الشبكة. اعتمدنا منهجية دراسة حالة في سياق التفاعلات النظامية، وانتهينا إلى واقع يفيد أن المؤسسات الصغيرة والمتوسطة، لا تنمو بحسب منطق مطابق بالضرورة لمتطلبات الفكر المقاولاتي، ولكن بضرورة لعب ادوار جديدة بإدماج الديناميكية الشبكية في نموذجها التنموي.
تصنيف JEL : L25 ؛ L14 ؛ L26 ؛ L22	

* corresponding author : IMOUDACHE Karim email : karim_imou@yahoo.fr

I.INTRODUCTION:

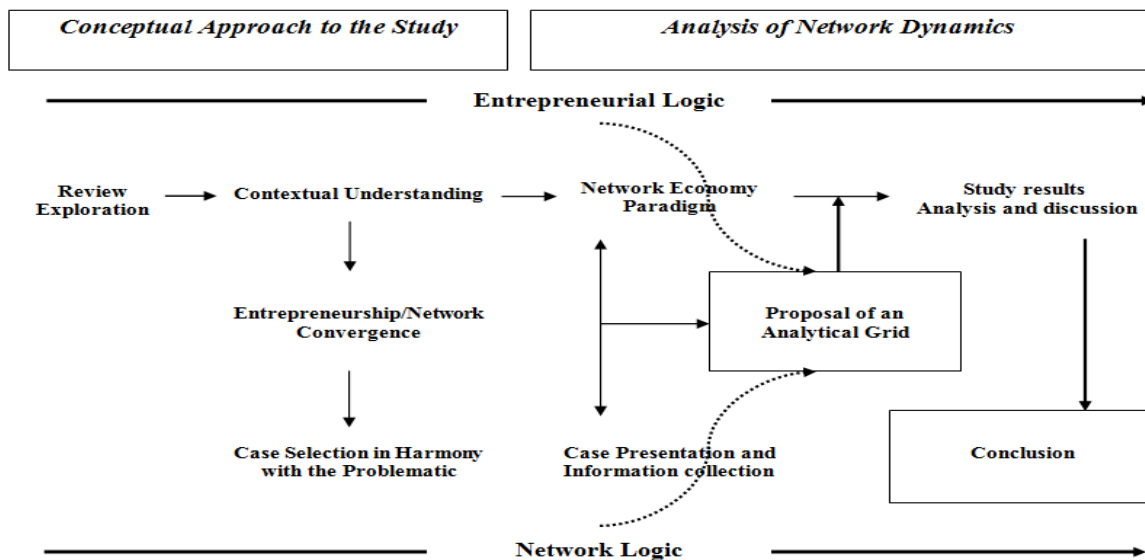
The interest in the dynamism of the small and medium enterprise in the context of interaction with the environment goes beyond the limits of simple causal relationships today as it extends to include various actors, under what is termed the business ecosystem, or beyond that to an integrated network of institutions .That is reflected in a new multi-polar organizational reality, where several dimensions meet to form new patterns of human activity.

The conscious situation requires that the intellectual horizon of entrepreneurship be broadened, to include the necessary links for the network's work, considering that the strategic success of the organization depends not only on the efficiency and effectiveness of its organizational performance, but is linked to the success of the network as an integrated whole [Lambert, Cooper, 2000].So ,It is important to focus on The problematic of upgrading and developing the small and medium enterprise at all organizational levels of the network, while the research contributions in this field face the problem of complexity, and the incompleteness of the intellectual framework of network economics [Habhab-Rave.S, 2009]. We will assume that the glow of the contracting energy in its networked regulatory framework depends on the contractor's ability to realize the new challenges of network economies and the mechanisms for its activation.

Thinking about the network economy imposes itself as a necessity that accompanies every entrepreneurial dynamic, looking to exploit opportunities for growth and development, through a good positioning in the network of relationships, and openness to the economic environment, without forgetting that this new reality requires profound transformations at the level of the contractor's behavior and at the level of management tools. Therefore, we will focus our attention in this research to the necessary links for the work of the entrepreneurial system in a complex network organization. That can be formulated in the following problematic: ***What is the role assigned to the small and medium enterprise in the framework of network economies?***

The importance of the research is mainly reflected in the fact that it sheds light on the entrepreneurial dynamism in a complex network environment, as it aims to define its features and conditions, understand the nature of the work of networks and identify the opportunities and threats associated with them with regard to the promotion of small and medium enterprises, and try to push thinking towards the formulation of an analysis consistent with the methodology of the study.

Attempting to achieve the set goals requires us to also think about the effective method and approach to building ideas and formulating solutions to the problematic; the parallel figure illustrates the methodology of the study.

Fig.1. Methodological Approach to Research

Source: IMOUDACHE 2024, Inspired.

In this context, we have followed the methodology of a case study in the context of systemic interactions. Accordingly, we will try in a first stage to define the concept of entrepreneurship in the context of the network and activating its economies. Then; this understanding is projected onto the general interactive context of the case under study. We end up defining the role of entrepreneurship in promoting and developing networks.

II. THEORETICAL FRAMEWORK AND PREVIOUS STUDIES:

II.1. Entrepreneurship in the context of a network orientation:

In fact, we cannot deny the convergence between entrepreneurship and the network orientation in creating an organizational dynamic and a dominant economic model that characterized a period stretching back to before the industrial revolution [Assens, 2003], when the beginnings saw the organization of trade exchanges around a network of entrepreneurs, the logical process. It has made the entrepreneur the most important actors in the overall history of economics and society [Weber, 1991; Swedberg, 2005]¹, and the justifications for this approach continued around the perceptions of wealth and profit creation in a new regulatory framework, and this would define our initial perception of the small and medium enterprise, as the optimal medium for renewal and value creation through the synthesis of resources and competencies in a network of interactions, which impose the need to reconsider even the organizational boundaries of the systems.

It is not certain that the entrepreneurial class is sufficiently aware of its position within a network that is constantly woven and untied. That is why studies reveal to us many trends that split into two halves. One examines the problem related to the extent of the importance of networks in developing and achieving economic and social development, and another half discusses the problem related to how to develop and upgrade networks. Actually, our research tries to find a place between the two halves.

Whatever the depth of the bifurcation and overlap between the various trends, we will always reach a reality that is controlled by the necessity of the system. The first approach, for example, links the network to the privileges that the institution can obtain through cooperation, and the necessity is to achieve competitive distinction through the participation of industrial or research and development platforms ; As it is the case today in the field of the hybrid car industry. As for the small and medium enterprise it is initially subject to the variables of the environment more than its ability to structure it **[Pachè, 1990]**. Accordingly, positioning within a network of collaborators becomes necessary as a mechanism for adapting to the changes of the environment.

The second view attributed a part of the organizational structure to the institution's interaction with the foundational elements of the environment, or what is termed the organizational fields which represent a group of integrated organizations that in their entirety constitute a recognized foundational body **[Powell, Dimaggio; 83]**. In the organizational field, the institution is subject to various restrictions that direct its behavior and determine its development ; which are of a forced nature (man-made laws), normative (professional standards, standards for socially acceptable behavior)and analogue (competitive pressures) .While statistics show that a large percentage of small and medium enterprises do not last for more than three years, for several considerations, perhaps the most important of which lies in the fact that the small and medium enterprise is more sensitive to the surrounding restrictions with a limited ability to influence the terms and conditions of Its activity, **[Silvester, Goujet, 1996]**.

The third approach considers that the network that determines the organization's strategy **[Miles et Snow, 1986]**, while the necessity of the system is related to the problem of managing the network **[Hamel et al., 1989; Osborn et Hagedoorn, 1997]** , As business leadership means an interactive context (**Producer / customer**), aims to create supply (the project), and negotiate a specific market that is considered by **[James Moore, 1993]²** as a business ecosystem which is defined as a heterogeneous conglomerate of different sectors, forming a strategic community of interests and values structured around a leading institution imposed or It worked to involve other institutions in its commercial design, or its technology base **[Torres-Blay, 2003]**, In fact it is a network system that gathers the various parties, which directly or indirectly affect the environments in which the institution develops.

In the context of small and medium enterprises, the problem (the necessity of the system) will revolve around the behavior of the contractor who despite having several specifications that

qualify him to be at the fore does not necessarily includes administrative and organizational efficiency to have a strategic openness to the world of networks. As a recent study revealed (It touched 200 small and medium enterprises in Europe) that the contractor considers his non independence in his decision-making one of the most important factors that threatens his organization. Therefore we reach here a definite contrast between the entrepreneurial perception and the administrative-organizational perception.

The fourth approach examines how to activate networks, where it is necessary to distinguish between the network institution and the network of institutions. The network is considered as an intermediary model driven by the necessity of overcoming the negatives of the inward-oriented hierarchical model (the integration of the organizational structure and coordination mechanisms, the most important of its negatives are the cost: high information management, solidity organizational behavior and weak ability to adapt), the market-based model with an external orientation (competition, possibilities for cooperation and participation. Its most important negatives: a high cost of coordination between the contractors, a strong opportunistic logic of opportunities an environment of uncertainty). The activation of the network cannot be satisfied with a single logic confined to certain rational limits, but must be represented as a social action that establishes new forms of activity. So, small and medium enterprises cannot constitute an exception to this rule, except within very narrow limits.

In light of the foregoing, we conclude by confirming that the Networks Act imposes a new reality on the issue of developing and promoting small and medium-sized enterprises, which necessarily creates the need to broaden the intellectual horizon to include the interactions and connections necessary for the functioning of the system as an integrated whole. In this context, we can refer to its common manifestations in many forms, perhaps the most important of which are cooperation between different economic actors, control of information flows, exploitation of available opportunities and overcoming restrictions, adaptation to the volume of interactions, social acceptance of organizational actions linked to the complexity of entrepreneurial behavior, which It is controlled by several dimensions. So, on this basis we can justify the research problem in terms of the necessity of activating the economics of the network.

II.2. Network Economics for Entrepreneurship Development:

There is a reason then, to note the forms of knowledge linked to the network; As this knowledge in its development always tries to reveal and explain the strategic options of modern institutions, understanding the mechanisms of organizing and activating networks and identifying the various challenges associated with them. Thus, we will face an incomplete intellectual framework, and a more diverse and richer reality [Rorive, 2003]³.

The problem of defining the concept of the network must be presented from various angles, and this means the necessity of transforming contradictions into an objective reality. From the angle of stillness, the network expresses a group of structures whose threads are stretched in

different directions, its meaning of disappears in the complexity and intertwining of its elements ; However from the angle of movement, It expresses the set of material and immaterial flows whose meaning and content is determined according to the nature of its elements. Actually, the objective reality of networks must accept the combination of contradictions between movement and stillness, between competition and cooperation, between closure and openness, between organizational rationality and entrepreneurial subjectivity.

Walking in the system of contradictions puts us in front of many definitions, as **[Boulanger, 1990]** tried to simplify the concept of the network as an assembly of small, scattered units, linked to each other in a form characterized by organization and relative formality, with the aim of satisfying common needs. As it seems according to this definition, the formation of a network of small and medium-sized enterprises is still possible if the needs coincide even without the completion of the legal regulatory framework.

The need for growth and development allows adopting a simplified explanation of the emergence and development of networks; this development will be within the necessity of obtaining more resources. Since the more quickly institutions develop, the more they realize their need for external resources **[Jarillo, 1989]⁴**, and as indicated by the works of **[Quinn & Hilmer, 1994; Quinn, 2000]** When access to external resources (OUTSOURCING) is considered as one of the essential characteristics of network, and tools for productivity and improvement in innovation industry.

These observations are consistent with the definition of **[Paché ; Bacus-Montfort, 2003]** of the network-oriented organization, which adopts a contractual development model aimed at recruiting private assets with partners instead of owning them; and accordingly the situation will be very demanding. Where the competitive advantage of the network is determined according to many Considerations: (organizational mutual learning among collaborators, a strategy of co-specialization, qualitative information and resource flows, peace economics, and structural market organization by actors) **[Ebers & Jarillo, 1998]⁵**.

The logic of the network can be explained by the existence of relatively strong exchange relations between the various economic actors. Even the conditions of war, it was not possible to cut gas supplies between Russia and Europe, and this requires a minimum level of consensus and mutual trust between the actors **[Thorelli, 1986]⁶**. As well as we cannot deny The role of geographical convergence in creating clusters between institutions, social and psychological convergence in activating dialogue and information exchange, long-term contracts based on trust for network stability, technological convergence, and easy access to resources and means to activate cooperation and participation activity **[Julien et al, 2003]⁷**.

This convergence, interconnection and network interaction results in a continuous dynamic of material and immaterial flows that cover the shortcomings of the inward-oriented hierarchical model, and the market-based model with outward orientation that creates a new model called the

economies of the network .Actually activating organizational learning and knowledge-making It activates cooperation and participation in important development projects, activates peace economies, activates risk management mechanisms related to research and development, activates economic intelligence tools, and broadens horizons for the adoption of artificial intelligence. In the case, a profound change is required at the level of entrepreneurial behavior to accommodate the dynamics of the network. In all cases of this path, the lack of interest and lack of awareness will return in the form of restrictions imposed by the controlling logic of the network.

Accordingly, there is a special model for network economics, which is still searching for the completeness of its meanings and the development of mechanisms for its embodiment. Yet it is represented as an experiment that is constantly renewed and achieved without interruption in the entrepreneurial world. Among the meanings that we encounter as a reflection of the size of the relationships and the speed of the flows in the network is the meaning of the network effect (network effect) or in another expression the meaning of the external influence of the network (network externalities) where the benefits that can be obtained by the user of the network increase as long as the number of users of the same network increases , **[Katz et Shapiro, 1985]** and it distinguishes between the direct network effect, in the sense that we have stood on it, and the indirect network effect which assumes the existence of integrated economies among them, in order to achieve an increase in the gains.

In this context it is necessary to distinguish between the vertical dimensions of the network, or what is termed the network institution and the horizontal dimension of the network or what is termed the network of institutions; and the two dimensions can come into contact, as it is termed as the field of strategic alliances.

The networked institution is a leading entity in its specialized field, working on the one hand to develop its relationship with its customers to improve the quality of its products, and to achieve the best possible compatibility with market needs, and on the other hand, it works to develop its relationship with suppliers to improve production processes ; and thus, it abandons Some of its activities for institutions that are characterized by quality performance, and focus their attention on managing strategic relationships **[Poulin et al, 1994, Adapted]⁸**. In fact, a small and medium enterprise can build its own ecosystem by involving other institutions in the same value chain, but this depends on the existence of a balanced logic in the practice power and investment in long-term social relationships.

Moreover, it can also form a circle that revolves around a leading institution, while accepting submission to a strong authoritarian logic, which limits its ability to develop its activity. Therefore, it seems that network economies by perpetuating the principle of integration can contribute to the development of entrepreneurship, granting it protection and a certain level of stability and that is depending on the strategic position of the leading institution in the market.

The Business network is distinguished by its extensive horizontal and transversal structure, fostering collaboration on development and revitalization initiatives. Presently, global expenditure on mega-projects surpasses 8 percent of the world's gross product, signifying a new economic and social paradigm. This reality instigates intense competition among institutions seeking strategic positions within the network. Consequently, collaboration among small and medium enterprises emerges as one of the foremost strategic imperatives in the project domain. This collaboration necessitates the establishment of mechanisms for sharing technical, technological, financial, and human resources, aligning with the project's overarching logic.

From the perspective of network economics, the advantages and features can be sought through organizational learning between institutions, sharing of information and knowledge, balanced risk management; while the disadvantages are sought in the difficulty of coordination, where the failure of the project is linked to the failure of the network as a whole.

The role and behavior of the contractor in the world of networks, becomes a specific factor in the development and promotion of the small and medium enterprise, as he usually supervises practically all roles and tasks, and bears a large part of the risk in decision-making. This is in a dynamic of contradictions, where the network logic assumes openness to all variables to activate the economies of the network ; while the entrepreneurial logic pushes to limit the interactions necessary for growth, in a narrow space, in order to preserve the independence of decision-making [Huse, 1994; Leyronas, 1998].

Thus, small and medium enterprises do not grow according to a logic that necessarily conforms to the requirements of entrepreneurial thought; But through the need to play new roles with strategic dimensions (understanding the rules of play), technical (adapting to restrictions), social (investment in long-term relationships), and human (development of administrative thought, knowledge industry and competency development). Since the administrative activity results in this scope of the decisions of the entrepreneurial authority, we will try through the following to stand at this fact through a case study of the **(EQINOV)** institution.

III. METHOD AND PROCEDURES:

The complex structure of the world of networks must be subject to a continuous control ;That is why we will try to understand the entrepreneurial dynamism through a case study of a small and medium enterprise operating in France, in a scope characterized by rapid growth (scale-up). Actually, we have chosen this institution as it gave us the ease of obtaining Information, and its distinction in the field of renewable energies. Just as we do not hide that the reality of the networked existence cannot be fully understood from the standpoint of a single case, however, it allows even partially understanding its movement and defining the parameters of entrepreneurial behavior.

III.1. Presentation of the case study: (EQINOV) company:

EQINOV is a leading company in the field of energy transformation and the manufacture of renewable solutions. It was established in **2011**, and then it has known a qualitative leap and a significant acceleration of its development model; since it achieved in **2019** a growth rate equivalent to **114%** and a turnover of approximately **45** million Euros.

In activating its functional pattern, this institution relies on a work team of no more than **50** workers, which embraces a variety of technical competencies and recognized expertise in the field of energy performance. As it works within a scope that contributes to helping institutions achieve an ecological leap. So the more effective their contribution in reducing the rate of energy consumption through giving renewable solutions to its customers, the higher the profit margin it has. Consequently, that put it on the list of the best small and medium enterprises in France in the last three years with a cumulative growth rate of nearly **400%**.

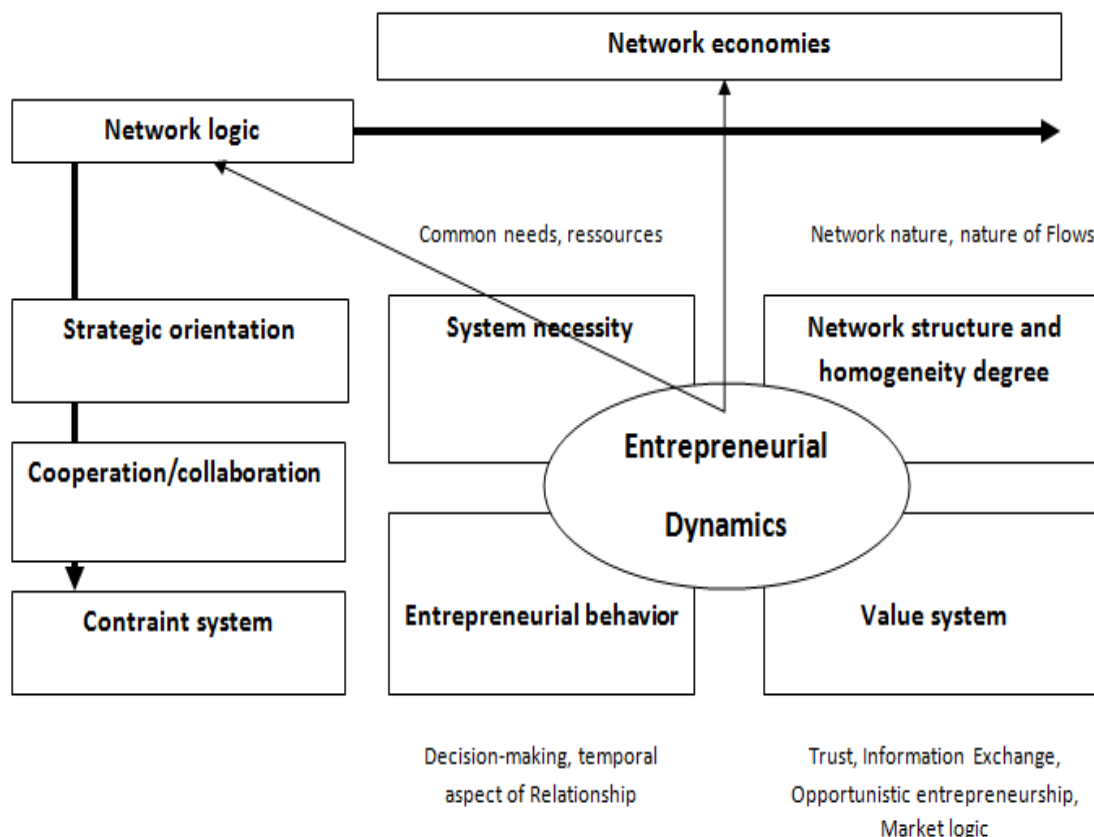
The EQINOV Company is the result of a joint vision of (**Sylvain Lagarde and Natacha Hakwilk**) on the energy stakes and the transition to a green economy. Thus, from this standpoint the entrepreneurial project was launched as an integrated service for the energy transformation through helping institutions to determine the possibility of saving energy, a feasibility study for this Transformation, and proposing solutions to finance the change project. According to (**Sylvain lagarde**) to (le Figaro) newspaper in its entrepreneurial edition, "We have only been riding the wave of energy transformation." Which leads us directly to the association of entrepreneurial thought with the ability to exploit and seize opportunities, but we should mention that its ability to continue depends on the environment's acceptance of its outputs within a value system of common understanding. That is noticeable in the case under study where the statistics recorded an increase in the number of its customers to exceed today more than **2500** Customer.

III.2. Information collection, processing and analysis methodology:

In the process of collecting data and information we relied on scientific observation of a set of indicators derived from the institution's electronic platform, which were formulated primarily through the perceptions of various actors. The situation calls for a qualitative description of the various changes that accompany each entrepreneurial dynamic or at least an attempt to explain its trends.

To achieve this objective we must first formulate a network to analyze and observe networks from the angle of one case (**Fig.2**), because the nature of the analysis is not a given data, but a renewal that we see in the double reading of the dominant network logic and the mechanisms of activating network economies. So, a new role for entrepreneurship can be drawn and determined by several considerations.

Fig.2. Network Analysis and observation Grid from the perspective of single case in an entrepreneurial context



Source; IMOUDACHE, 2022.

The first consideration is related to the necessity of the system which is the meaning that encapsulates every organizational role.

As for the second consideration, it is related to network architecture where we agree with the analysis of [Fulconis, Joubert, 2009] about the necessity of determining the degree of network homogeneity, which is the situation revealed by the nature of the network and the nature of its dynamic flows.

Then for the third consideration, opens the window to the entrepreneurial behavior in a network context, which is controlled by the degree of independence in decision-making and the time horizon of social relations.

As for the fourth consideration, it is related to the homogeneity of the value system which represents the center of gravity in the cohesion and continuity of the network.

The role of the small and medium enterprise is determined in the context of network economies as an intertwined sum of motives, goals, beliefs, values, trends and behavior which aims to maximize its benefit from the privileges granted by the network in the application of its development model.

IV.STUDY RESULTS (ANALYSIS AND DISCUSSION) :

Through our collected data, we can sense the strong connections between the dominant entrepreneurial logic in the small and medium enterprise and the dominant network logic in the organizational environment.

We can also sense the difficulty in developing the professionalism of the small and medium enterprise. But in the other hand, the analysis network allows us to locate at the level of contact points between the entrepreneurial logic and the network logic.

Thus, this is the place where new roles for entrepreneurship in developing networks and activating their economies can be revealed. Therefore, we will start from the network image in its institutions before passing it on for analysis and observation, the figure number (03) below illustrates the basic structure of the EQINOV Company Network.

Table.1. The System Necessity in the core of Network Dynamics

Network Economics			
Network Logic	The connections	System Necessity	Activation mechanisms
STRATEGIC ORIENTATIONS	Acquisition of Winergia Corporation	Growth and Elevating Impact in the Organizational Environment	A strong entrepreneurial logic contradicts the network logic
	LUCIOLE , a group of innovative and independent SMEs in the energy sector	Developing deep knowledge about energy improvement opportunities	Developing recurring offers for consumers (Direct network effect).
	CAPENERGIES . A network of actors whose mission is to create a solid ecosystem	Positioning within a specific ecological system to enhance the competitiveness of the enterprise.	Balanced logic of power through contributing to the (Flexgrid) program for the development of a smart energy network, geographic convergence.
COOPERATION PARTNERSHIP	Project partnership with WATTSENSE Foundation	Technological partnership aimed at finding an effective solution for remote energy management	Strong logic for the project (principle of integration and collaboration), sharing research and development costs.
	Technical association for energy/environment	Promoting energy control in enterprises and various organizations	A communicative approach about energy challenges.
	European Energy Efficiency	Developing competencies in the field of energy	Exchange of expertise among stakeholders

	Network (EENE)	efficiency	(principle of organizational learning).
	Association of Engineers in HVAC&R" (Heating, Ventilation, Conditioning, and Refrigeration)	Contributing to the development of energy performance in buildings and in scientific, technical, and technological fields	Exchange of expertise among stakeholders (principle of organizational learning).

Source: IMOUDACHE, 2024.

The developmental dynamism of **EQINOV** can be explained in the inclusion of the enterprise (**WINERGIA**) in the framework of the development of its power and influence ; And this is clearly shown in the statement of (**NATACHA HAKWIK**) about the process: “**WINERGIA** has competence in the field of studies on energy efficiency, and this is included in The first stages of our way of working,” but we will be at this particular point in front of an explicit contradiction about activating the network economies by perpetuating the principle of integration.

IV.2 Network structure and homogeneity degree:

The necessity of the system can make the presence of the image about the network of (**EQINOV**) institution. In terms of objectives, the vision converges on the necessity of energy transformation, rationalizing energy use in institutions, and various organizations. As for the tools, the mechanisms for activating the network’s economies vary according to the dominant logic of the network. From a strategic perspective, the network entails a vertical architecture aimed at positioning itself in an energy transformation ecosystem whose role is limited geographically to competitive considerations (région PACA, Corse, Guadeloupe, Ile de la Réunion ainsi qu'en principauté de Monaco).

As well as to involve the institutional fabric (clients) in its energy transformation project, through developing its knowledge via the possible improvement opportunities, and contributing to the development of a smart energy base.

From a standpoint of collaboration and engagement, a notable receptiveness is observed across all organizational echelons, aligning with the established strategic trajectory. This receptiveness, however, is manifested through the adoption of a horizontal network architecture characterized by the vigorous interchange of experiences and information. Additionally, there is active involvement from a research and development foundation within the ambit of initiatives focused on rejuvenation and progress. Furthermore, a communication strategy is embraced with the specific aim of articulating a shared vision regarding the imperatives of the energy transition, intricately linked to the paradigm of constraints and values within the system.

In general, the network orientation of (**EQINOV**) company is relatively homogeneous and multidimensional supported by common interests and linked in a good harmony with a strong entrepreneurial logic. Then when cooperation becomes sustainable and usual, a hybrid organizational system appears [Williamson, 1991], and this situation tends to be fully realized, in the case under study. .

IV3. Entrepreneurial behavior and the value system:

It may be an illusion to attribute to the networks a coherent and clear awareness of the common interests, and the homogeneity of their engineering structure. The entrepreneurial behavior is shrouded in ambiguity, determined by the degree of independence of decision-making. In fact, the case under study confirms that the network option is a conscious strategic choice resulting in a relatively stable dynamic in time. It is also represented as an inevitability resulting from the system of constraints and from the stability of the value system. **Table number 2** draws attention to the importance of the professional and cultural dimensions in understanding the dynamics of networks.

And since the existence of a stable value system cannot be fully realized in the world of networks, opportunistic behaviors may be appear between **partners** [**LAKHAL et al., 1999; JULIEN et al, 2003**]; so an SME can develop networked thought by spreading a set of social values. The **EQINOV** Foundation expresses its social values on their official website, which are:

- 1- Responsibility: The success of the project with our clients requires a full and explicit commitment, and the responsibility falls within the framework of managing long-term social relations through devoting the principle of trust.
- 2- Transparency: We care about collective intelligence, so we communicate the positives and negatives of the situation; and transparency in this concept represents a guarantee for the exchange of information and experiences.
- 3- Creativity: Creating the new, formulating solutions that meet the needs of our customers, and creativity as a value determined by the estimations generated in the social relations themselves.
- 4- Team spirit: the integration of competencies distinguishes us and contributes to the development of the institution. The interest and development of competencies can be represented as a symbolic value for the quality of the system's outputs.

Table.2. Entrepreneurial behavior and value system

Network Economics			
Network Logic	The connections	constraints	values
CONSTRAINTS SYSTEM	EQINOV is a member of the board of directors of GPC2E, the representative association of Energy Savings Certificates professionals	Professional constraints	Signing a charter to ensure quality and transparency of commitments for customers and partners.
	City and Sustainable Development Network	The challenges of sustainable reconstruction and development	Dialogue, information exchange, training.
	EnvirobatBDM brings together construction professionals	Best practices and innovations in the field of sustainable construction, planning, and redevelopment	Environmental protection, sustainable services.

Source: IMOUDACHE 2024.

However, these strong statements in fact refer to the general trends of management, and in order to fulfill the conditions for dropping them in the practical reality of the network, they must be represented in applications and tools that embrace their meaning. In fact reality is expressed only by the entrepreneurial dynamism in its quantitative and qualitative changes.

V.CONCLUSION:

It is now known to us that the networks law imposes a new reality on the issue of developing and promoting small and medium-sized enterprises. This law is not only subject to the logic of size, just as its distinct limits do not cease to change in the presence of a strong logic for the power of large institutions. So, that gives a sufficient justification to expose a simple question about the role of small and medium-sized enterprises in activating the economies of the network.

The nature of the role entrusted to the small and medium enterprise changes in an intertwined and complex networked world, depending on a set of factors and variables that govern the balance of the relationship between the enterprise and its surroundings. Where we refer to the most prominent of these factors and variables, and we attribute them first to the necessity of the system which is mostly driven by the existence of common interests between economic actors, and the search for integration in resources and competencies. In fact the entrepreneurial logic is keen to use the network as a tool to satisfy its strategic needs, and this does not negate that it is employed as a tool to please other active actors.

It happens that we form an image about the network and its economics, as a continuous and uninterrupted attracting dynamic of energy which its results exceed the number of its elements.

The second factor is related to the engineering of the network itself and the nature of its flows, where the entrepreneurial energy can be organized as a feeding system of an ecosystem around a leading institution. In this case it can benefit from the economics of peace and reduce costs by dedicating the principle of specialization. Besides, it can also be organized around projects for renewal and development according to mechanisms that control the movement of resources and competencies. As well as the network economies can be activated by devoting the principle of cooperation and sharing, exchanging information and experiences, and reducing research and development costs. Actually, it happens that we form an image about the network and its economy as an engineering system that regulates the optimal use of resources and competencies by opening channels of flow regulated by the equation of balance between resources and the necessity of their use.

The third factor is the entrepreneurial behavior and its value controls. so we have formed an image of the network and its economy as an inevitable result emanating from the system of restrictions, and also from the stability of the value system. Then, the continuity of the small and medium enterprise depends on the degree of its openness to its surroundings and its ability to adjust its development model according to the imposed restrictions; And according to the socially accepted values in its organizational field.

Thus, small and medium enterprises do not grow according to a logic that necessarily conforms to the requirements of entrepreneurial thought, but through the need to play new roles with strategic dimensions (understanding the rules of play), technical (adapting to restrictions), social (investment

in long-term relationships), and human (development of administrative thought, knowledge industry and competency development).

In conclusion, and in light of the results of the research, we can formulate a number of suggestions that revolve around the new directions for the promotion of small and medium-sized enterprises in the world of networks:

1-It is necessary to anticipate the problems associated with network interactions when thinking about upgrading small and medium enterprises, as the connections do not occur automatically except by the combination of a set of factors and considerations referred to above.

2- It is important to raise awareness of the importance of network economics in the development of small and medium enterprises, by focusing on the role of entrepreneurship in the world of networks.

3-Taking into consideration the network dimension and activating its economics in formulating the strategy of the small and medium enterprise.

4- Developing thinking about network engineering and the mechanisms of controlling its physical and immaterial flows.

5- Upgrading the value system of entrepreneurship and investing in long-term social relations.

VI.REFERENCES:

Book

- 1- ANGELIER.J.P, (2013), **Economie des industries de réseau**, Editeur presse universitaire de Grenoble.
- 2- BOULANGER.P, (1990), **Organiser l'entreprise en réseau**, NATHAN, PARIS
- 3- COMBES.J, LASNIER.B, LAVILLE.J.L, (2022), **l'économie solidaire en mouvement**, Editions Erès.
- 4- DRUCKER P, (1999). **L'avenir du Management Selon Drucker**, Edition village Mondale, Paris.
- 5- MORIN Pierre, DELAVALLEE Eric, (2000), **Le Manager à l'écoute du Sociologue**, Editons d'organisation, Paris.

Article in a journal

- 1- BOUTILLIER.S.TIRAN.A, (2016), **la théorie de l'entrepreneur, son évolution et sa contextualisation**, De Boeck Supérieur, 2016/2 N°50. P211-234. DOI 10.3917/inno.050.0211.

- 2- DEFELIX e Christian et Didier RETOUR, (2003), **La gestion des compétences dans la stratégie de croissance d'une PME innovante: le cas Microtek**, Revue Internationale P.M.E, Vol 16, N°3-4. P31-52. DOI : <https://doi.org/10.7202/1008444ar>.
- 3- EL HERELLI Afef, (2008), **Les réseaux d'entreprises : conditions de formation et typologie**, FACEF PESQUISA, Vol11, N°2, P233-252. ISSN: 2316-3402.
- 4- FACCHINI François, (2007), **Entrepreneur et croissance économique: développements récents**, Revue d'économie industrielle, 3^{ème} trimestres. P55-84. DOI : 10.4000/rei.2033.
- 5- FULCONIS F, JOUBERT J, (2009), **Management des pôles de compétitivité et structures en réseau : une analyse de la filière Agroalimentaire**, Revue Management et Avenir, 2009/5, N°25, P184-206. DOI : [10.3917/mav.025.0184](https://doi.org/10.3917/mav.025.0184).
- 6- HABHAB-RAVE Saida, (2009), **Stratégie des réseaux et compétitivité : les cas des PME/TPE Tunisiennes**, Revue humanisme et entreprise, Vol1, N°291. P25-46. ISSN 0018-7372.
- 7- Katz, M. L., & Shapiro, C. (1985). **Network externalities, competition, and compatibility**, The American economic review, 75(3).P424-440. <https://www.jstor.org/stable/1814809>.
- 8- KRUPICKA.A, MARCON.C, MOINET.N, (2021), **l'influence au prisme de l'analyse réseau: le cas aquatiris**, Revue international d'intelligence économique, 2021/2 (Vol.13), page 61à79.
- 9- LAMBERT.D, COOPER M.C, (2000), **Issues In Supply Chain Management**, Industrial Market Management, 2000, N°29, P65 à 83. DOI.org/10.1016/S0019-8501 (99)00113-3.
- 10- **Les échos**, publié le 20 mars 2020.
- 11- MARIOTTI Fabien, (2004), **Entreprise et gouvernement : à l'épreuve des réseaux**, Revue française de sociologie, 2004/4 Vol.45, P711-737. DOI 10.3917/rfs.454.0711.
- 12- PACHE Gilles, (1990), **Stratégies réticulaires et vulnérabilité de la petite entreprise**, Revue française de Gestion, N°78, P 52-60.
- 13- PACHE et BACUS-MONTFORT, (2003), **Le management logistique intégré**, Problèmes économiques, N°2792.

Conference article/Proceedings

- 1- BAYAD.M, BOUGHATTAS.Y, SCHMITT.C, Octobre (2006), **Le métier de l'entrepreneur : le processus d'acquisition des compétences**, 8^{ème} congrès international francophone en entrepreneuriat et PME.
- 2- LE FIGARO, le figaro entrepreneurs, N°23474-Cahier N° 4.Février 2020.
- 3- LEYRONAS Christophe, (1998), **la gestion des réseaux de petites entreprises : logiques entrepreneuriales et managériales**, Equipe de Recherche sur la Firme et l'Industrie, Université Montpellier-I CIFPME.
- 4- TORRES-BLAY Olivier, GUEGUEN Guel, (2003), **"LINUX contre MICROSOFT: La guerre des écosystèmes d'affaire"**, Cahier de recherche N° 2003/10, Ecole de Management LYON, Decembre2003.

-
- ¹ BOUTILLIER.S, TIRAN.A, (2016), **la théorie de l'entrepreneur, son évolution et sa contextualisation**, De Boeck Supérieur, 2016/2 N°50, **P220**.
- ² TORRES-BLAY Olivier, GUEGUEN Guel, (2003), "**LINUX contre MICROSOFT: La guerre des écosystèmes d'affaire**", Cahier de recherche N° 2003/10, Ecole de Management LYON, Decembre2003, **P5/40**.
- ³ EL HERELLI Afef, (2008), **Les réseaux d'entreprises : conditions de formation et typologie**, FACEF PESQUISA, Vol11, N°2, P233-252.
- ⁴ HABHAB-RAVE Saida, **OP.CIT.** P30.
- ⁵ HABHAB-RAVE Saida, **LOC.CIT.**
- ⁶ EL HERELLI Afef, **OP.CIT.** P236.
- ⁷ EL HERELLI Afef, **OP.CIT.** P248.
- ⁸ EL HERELLI Afef, **OP.CIT.** P244.